STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER: NBU 1022-03J3T
2. TYPE OF WORK: DRILL NEW WELL (●) REENTER P&A WELL ( ) DEEPEN WELL ( )		3. FIELD OR WILDCAT: NATURAL BUTTES
4. TYPE OF WELL: Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME: NATURAL BUTTES
6. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE: 720 929-6587
8. ADDRESS OF OPERATOR: P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL: mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE): UTU 01191A	11. MINERAL OWNERSHIP: FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )	12. SURFACE OWNERSHIP: FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS: YES (●) (Submit Commingling Application) NO ( )	19. SLANT: VERTICAL (●) DIRECTIONAL ( ) HORIZONTAL ( )

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1456 FSL 2277 FEL	NWSE	3	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1456 FSL 2277 FEL	NWSE	3	10.0 S	22.0 E	S
At Total Depth	1456 FSL 2277 FEL	NWSE	3	10.0 S	22.0 E	S

21. COUNTY	22. DISTANCE TO NEAREST LEASE LINE (Feet)	23. NUMBER OF ACRES IN DRILLING UNIT
UINTAH	1456	1363
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed): 20	26. PROPOSED DEPTH: MD: 8800 TVD: 8800
27. ELEVATION - GROUND LEVEL: 5219	28. BOND NUMBER: WYB000291	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE: Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Kathy Schneebeck-Dulnoan	TITLE Staff Regulatory Analyst	PHONE 720 929-6007
SIGNATURE	DATE 05/21/2009	EMAIL Kathy.SchneebeckDulnoan@anadarko.com
API NUMBER ASSIGNED: 43047504380000	APPROVAL: Permit Manager	

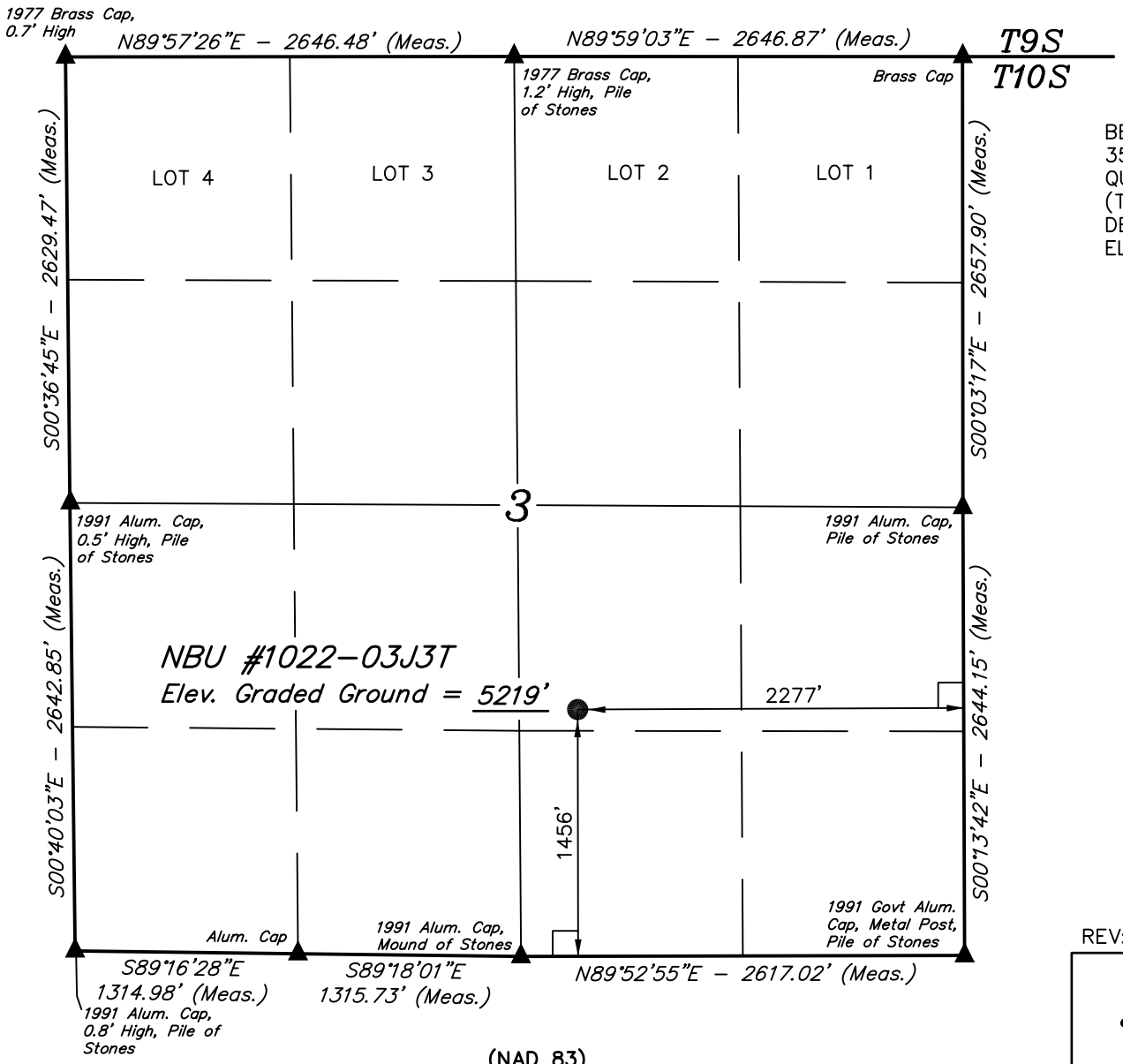
Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	8800		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 LT&C	8800	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2260		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2260	36.0			

T10S, R22E, S.L.B.&M.

Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #1022-03J3T, located as Shown in the NW 1/4 SE 1/4 of Section 3, T10S, R22E, S.L.B.&M., Uintah County, Utah.

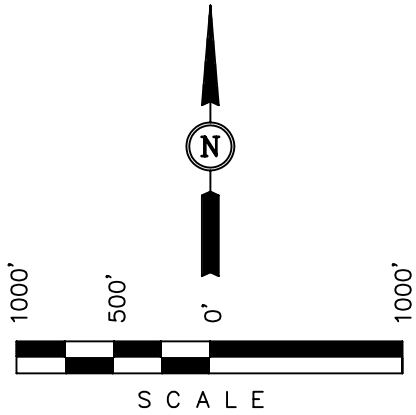


BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH

REV: 03-10-09 K.E.

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°58'28.91" (39.974697)
LONGITUDE = 109°25'29.26" (109.424794)
(NAD 27)
LATITUDE = 39°58'29.03" (39.974731)
LONGITUDE = 109°25'26.80" (109.424111)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE: 1" = 1000'	DATE SURVEYED: 08-06-08	DATE DRAWN: 08-20-08
PARTY: L.K. D.D. S.L.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: Kerr-McGee Oil & Gas Onshore LP	

'APIWellNo:43047504380000'

NBU 1022-03J3T
Surface: 1,456' FSL, 2,277' FEL (NW/4SE/4)
Sec. 3 T10S R22E

Uintah, Utah
Mineral Lease: UTU 01191A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,415'	
Birds Nest	1,556'	Water
Mahogany	2,057'	Water
Wasatch	4,384'	Gas
Mesaverde	6,725'	Gas
MVU2	7,668'	Gas
MVL1	8,252'	Gas
TD	8,800'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 8,800' TD, approximately equals 5,254 psi (calculated at 0.6 psi/foot).

Maximum anticipated surface pressure equals approximately 3,318 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone. KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

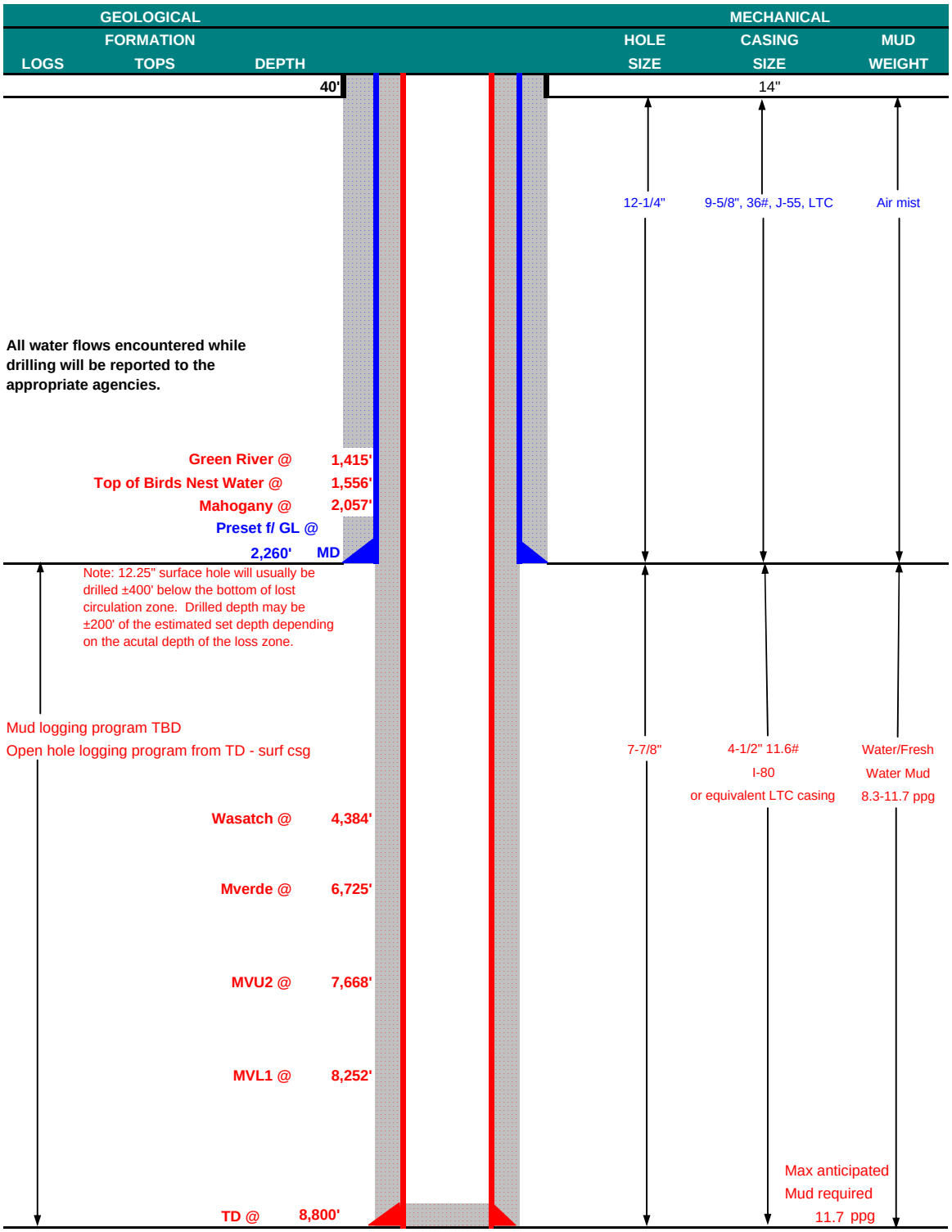
Please refer to the attached Drilling Program.

’APIWellNo:43047504380000’

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	May 21, 2009		
WELL NAME	**NBU 1022-03J3T**			TD	8,800'	MD/TVD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	5,219' GL KB 5,234'
SURFACE LOCATION	NW/4 SE/4 1,456' FSL 2,277' FEL	Sec 3	T 10S	R 22E		BHL	Straight Hole
	Latitude: 39.974731	Longitude:	-109.424111		NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), BLM (SURFACE), UDOGM, Tri-County Health Dept.						



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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2260	36.00	J-55	LTC	1.03*	1.91	5.57
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	8800	11.60	I-80	LTC	2.28	1.19	2.40

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.47

1) Max Anticipated Surf. Press.(MASP) (Surf Csg) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac grad x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 11.7 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,318 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 11.7 ppg) 0.6 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,254 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
			+.25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,880'	Premium Lite II + 0.25 pps celloflake +	370	40%	11.00	3.38
			5 pps gilsonite + 10% gel '+ 1% Retarder				
	TAIL	4,920'	50/50 Poz/G + 10% salt + 2% gel	1210	40%	14.30	1.31
			+.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

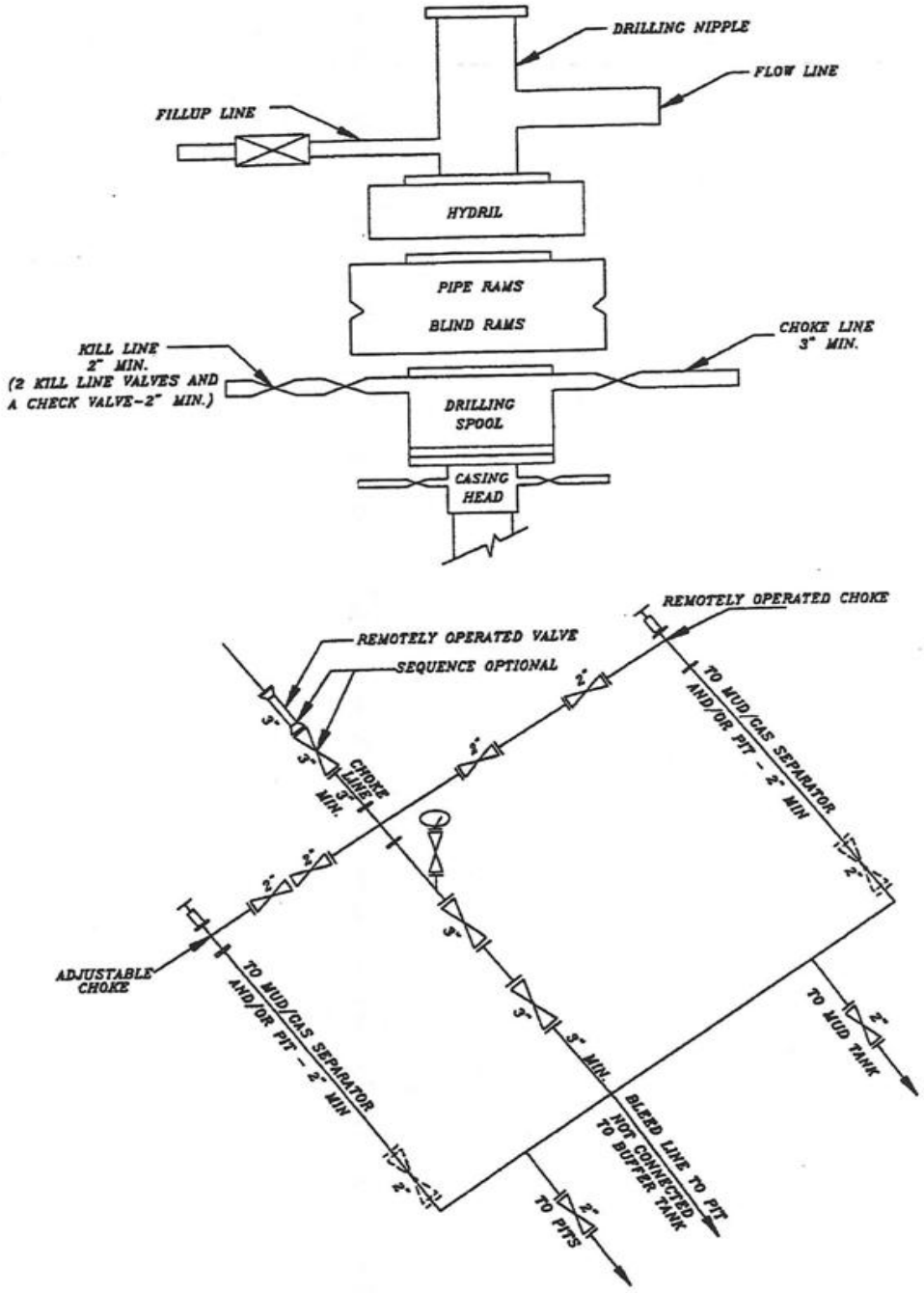
Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Grant Schluender

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 1022-03J3T



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047504380000'

Kerr-McGee Oil & Gas Onshore LP

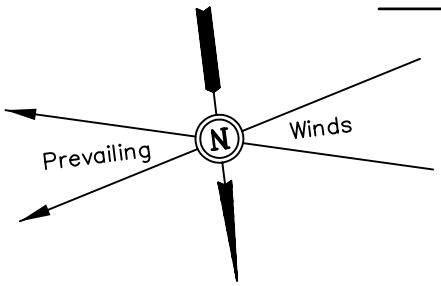
FIGURE #1

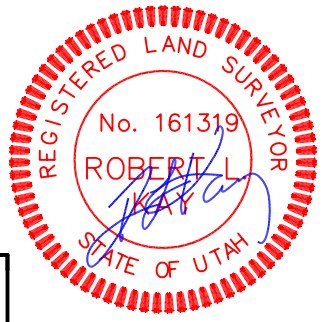
LOCATION LAYOUT FOR

NBU #1022-03J3T

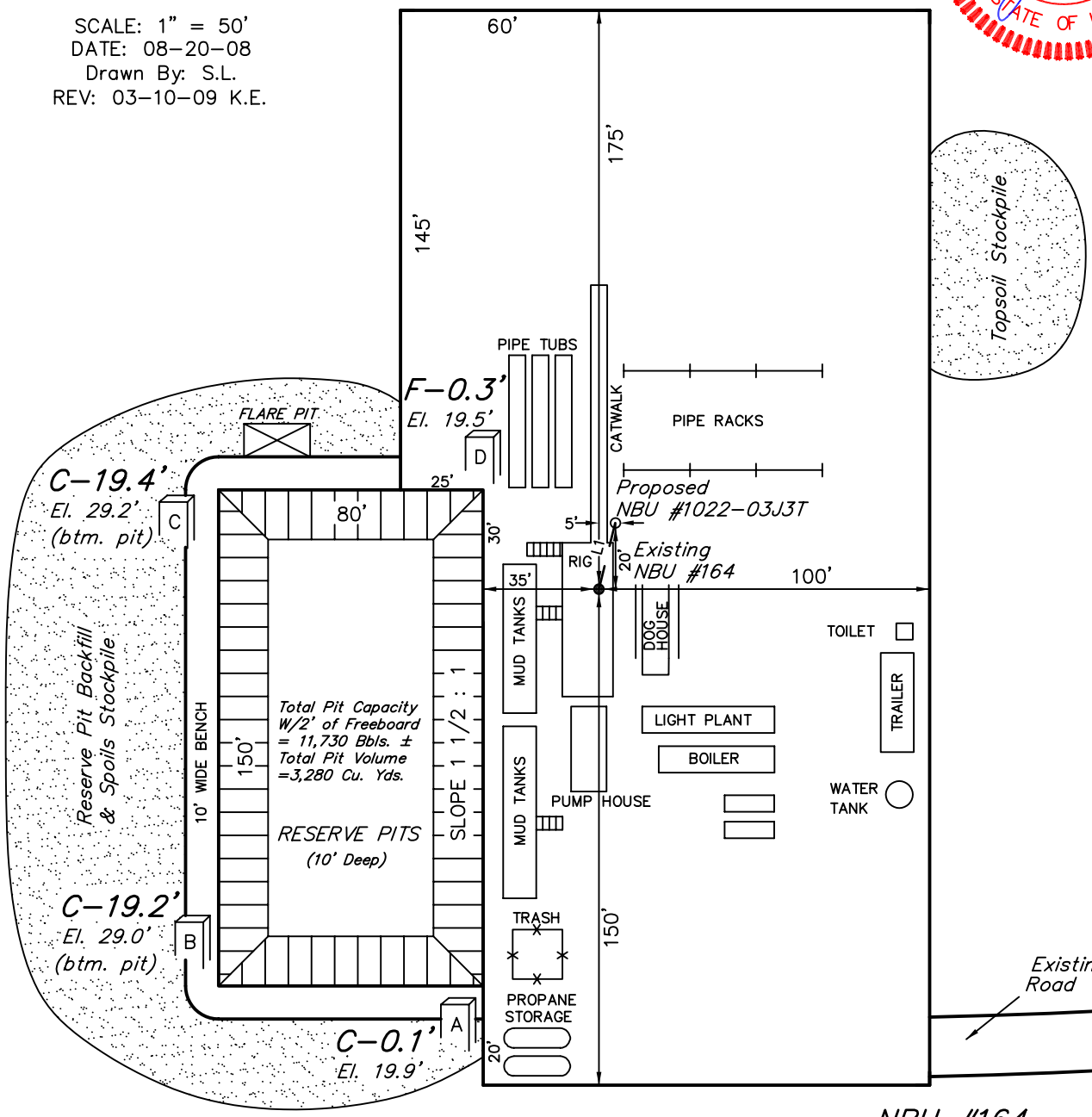
SECTION 3, T10S, R22E, S.L.B.&M.

1456' FSL 2277' FEL





SCALE: 1" = 50'
DATE: 08-20-08
Drawn By: S.L.
REV: 03-10-09 K.E.



NBU #164

(NAD 83)
LATITUDE = 39°58'29.10" (39.974750)
LONGITUDE = 109°25'29.16" (109.424767)
(NAD 27)
LATITUDE = 39°58'29.22" (39.974783)
LONGITUDE = 109°25'26.70" (109.424083)

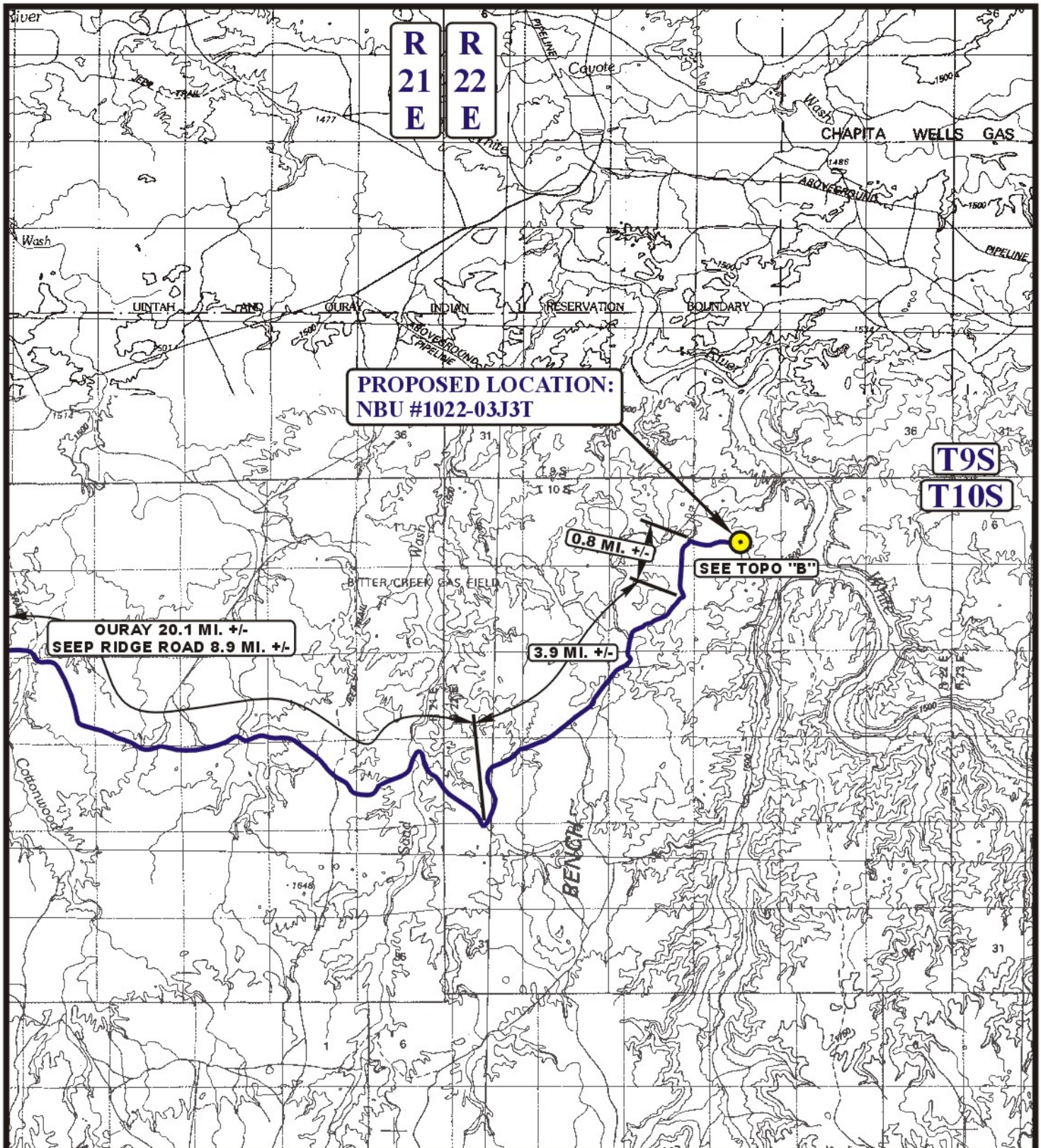
AZIMUTH TABLE		
LINE	BEARING	LENGTH
L1	200.813889 Az.	20.61'

NOTES:

FINISHED GRADE ELEV. AT LOC. STAKE = 5219.8'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

’APIWellNo:43047504380000’



LEGEND:

PROPOSED LOCATION

N

Kerr-McGee Oil & Gas Onshore LP

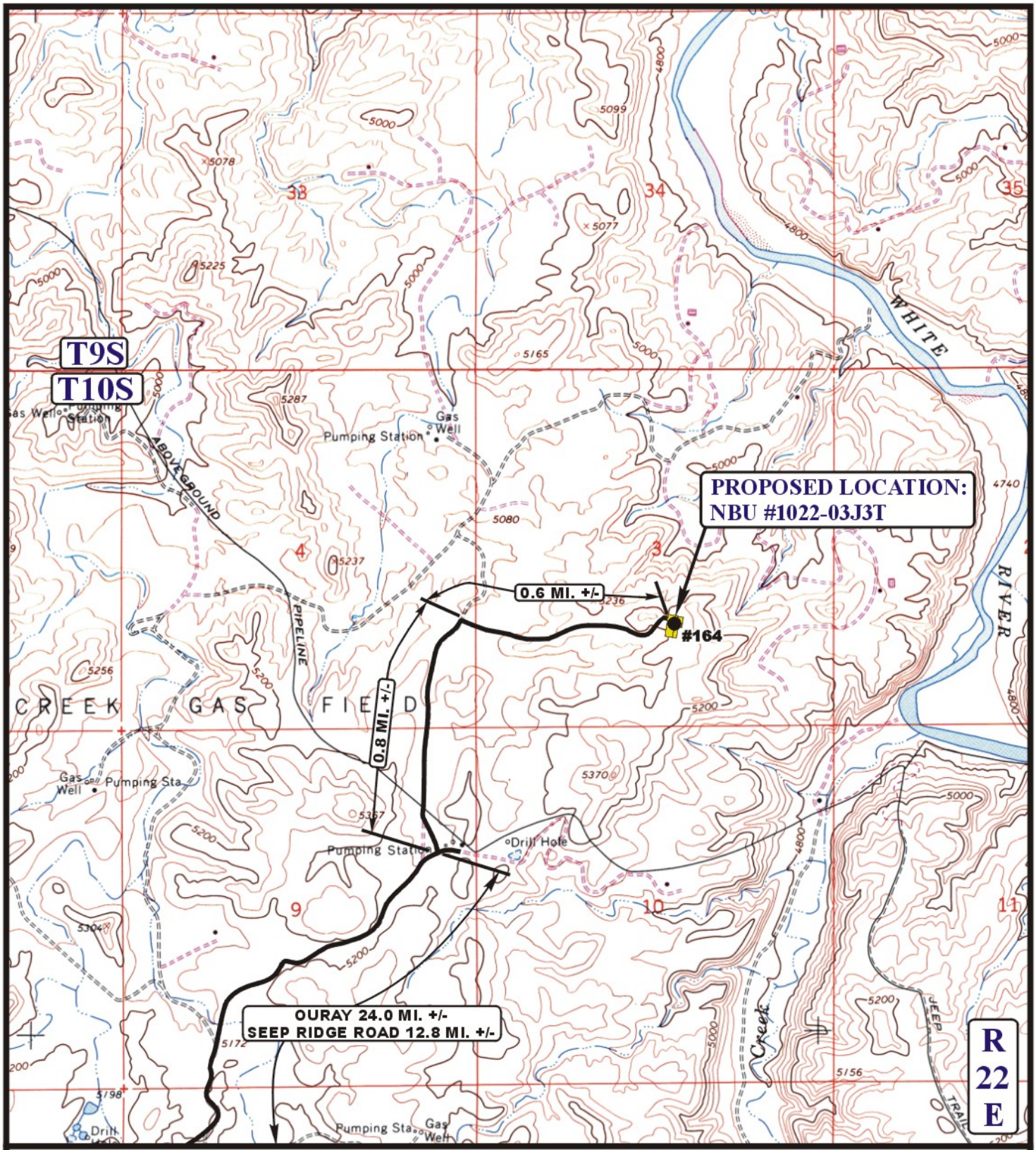
NBU #1022-03J3T
SECTION 3, T10S, R22E, S.L.B.&M.
1456' FSL 2277' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP | 08 MONTH | 15 DAY | 08 YEAR | A TOPO

SCALE: 1:100,000 | DRAWN BY: J.J. | REV: 03-09-09 Z.L.

’APIWellNo:43047504380000’



LEGEND:

EXISTING ROAD

N

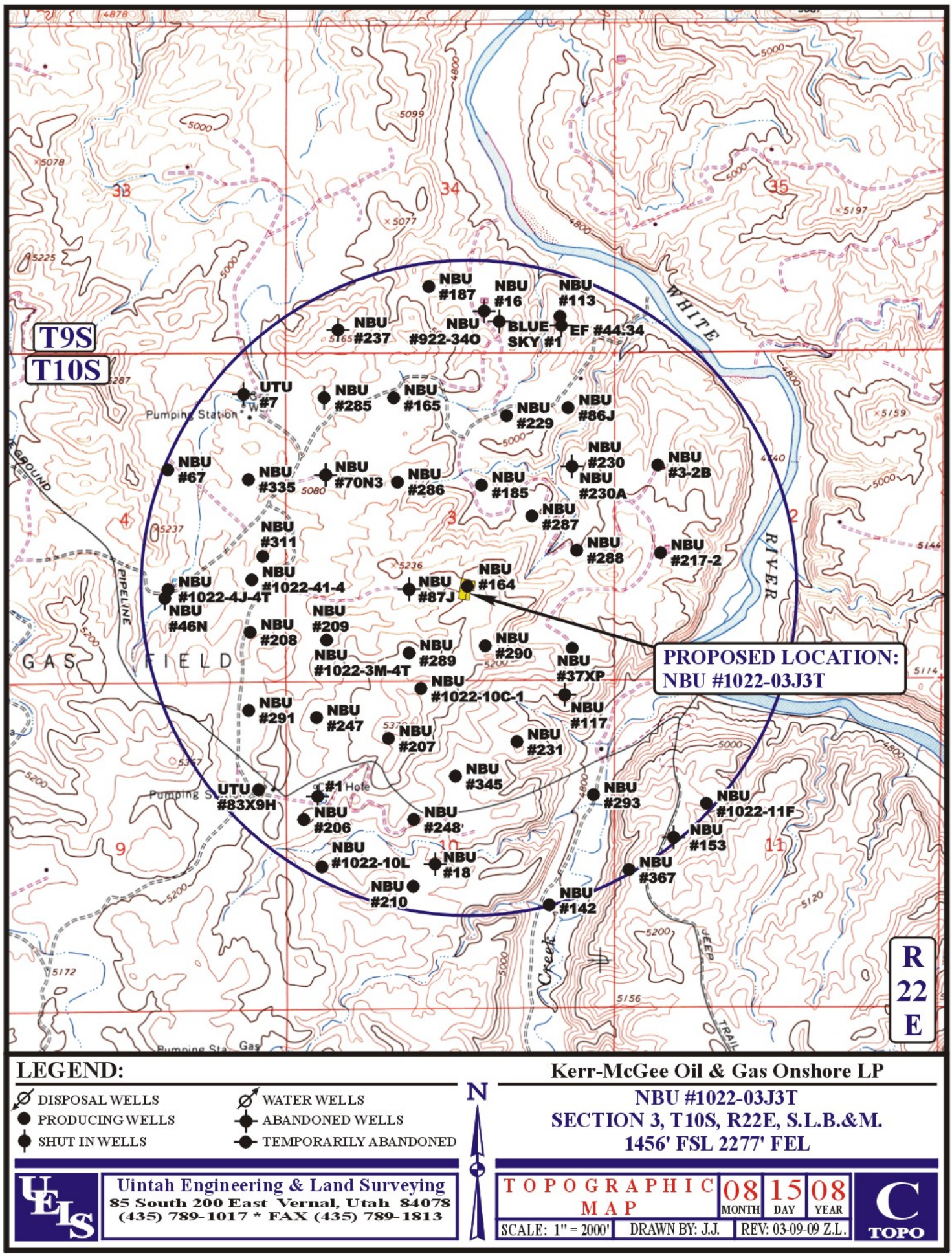
Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03J3T
SECTION 3, T10S, R22E, S.L.B.&M.
1456' FSL 2277' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	15 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		

’APIWellNo:43047504380000’



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03J3T
SECTION 3, T10S, R22E, S.L.B.&M.
1456' FSL 2277' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	08 MONTH	15 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		

’APIWellNo:43047504380000’

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-03J3T

LOCATED IN UINTAH COUNTY, UTAH
SECTION 3, T10S, R22E, S.L.B.&M.

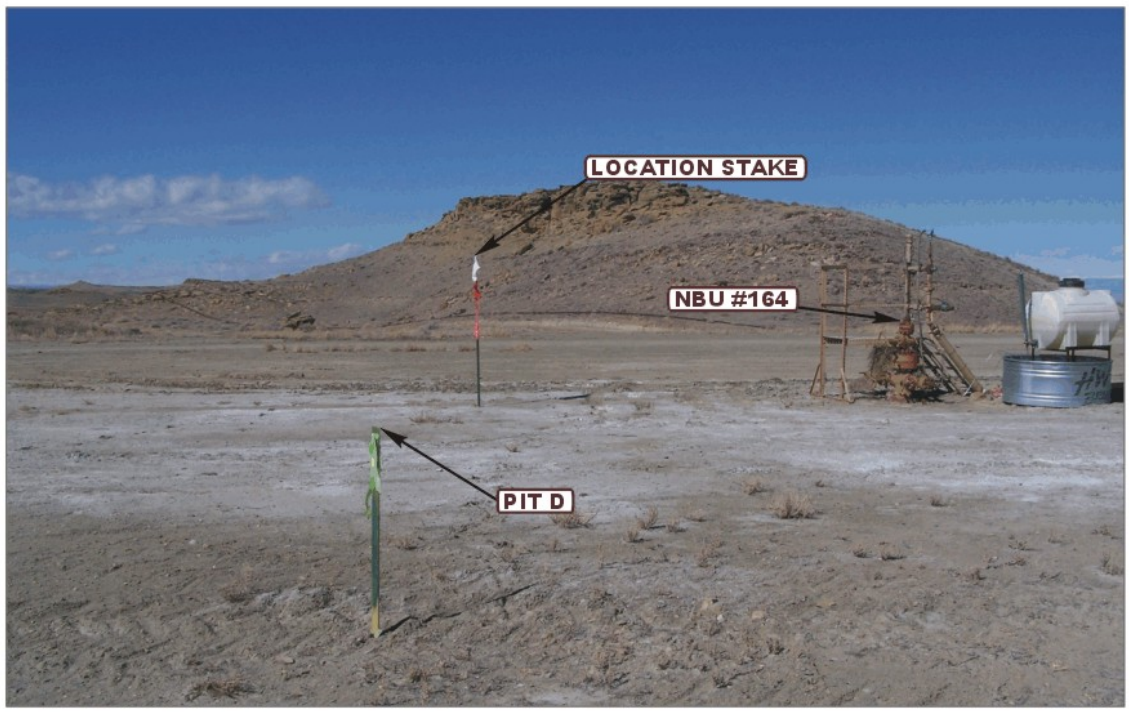


PHOTO: VIEW FROM PIT D TO LOCATION STAKE **CAMERA ANGLE: WESTERLY**

PHOTO: VIEW OF EXISTING ACCESS **CAMERA ANGLE: EASTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS	08 MONTH	15 DAY	08 YEAR	PHOTO
TAKEN BY: L.K.	DRAWN BY: J.J.	REV: 03-09-09 Z.L.		

Kerr-McGee Oil & Gas Onshore LP
NBU #1022-03J3T
SECTION 3, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 8.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN AN NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE EXISTING WELL #164 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.4 MILES.

NBU 1022-03J3T
Surface: 1,456’ FSL, 2,277’ FEL (NW/4SE/4)
Sec. 3 T10S R22E

Uintah, Utah
Mineral Lease: UTU 01191A

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2 mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. Planned Access Roads:

Approximately ±0.0 mi. (±0’) of new access road is proposed. Please refer to the attached Topo Map B.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Shadow Gray, a non-reflective earthtone.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

5. Location and Type of Water Supply:

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used; it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit. Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI in Sec. 5 T9S R22E, NBU #159 in Sec. 35 T9S R21E, Ace Oilfield in Sec. 2 T6S R20E, MC&MC in Sec. 12 T6S R19E, Pipeline Facility in Sec. 36 T9S R20E, Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E, Bonanza Evaporation Pond in Sec. 2 T10S R23E.

8. Ancillary Facilities:

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

10. Plans for Reclamation of the Surface:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A paleontological survey report and a Class III archaeological survey report is attached.

13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720-929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot
Danielle Piernot

May 21, 2009
Date

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS IN TOWNSHIP 10S, RANGE 22E UINTAH COUNTY, UTAH

’APIWellNo:43047504380000’

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP’S 73 PROPOSED NBU WELL LOCATIONS IN TOWNSHIP 10S, RANGE 22E UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Bureau of Land Management
Vernal Field Office
and
School and Institutional
Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-268

October 16, 2008

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

INTRODUCTION

A Class I literature review was completed by Montgomery Archaeological Consultants, Inc. (MOAC) in October 2008 of Kerr-McGee Onshore's 73 proposed NBU well locations in Township 10S, Range 22E. The project area is situated south of the White River and southeast of the Ouray, Uintah County, Utah. The wells are designated NBU 1022-1I, 1022-1J, 1022-1N, 1022-1P, 1022-2A2T,1022-2A3S, 1022-2A4S, 1022-2B2S, 1022-2D, 1022-2F, 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-2O2S, 1022-03A2T, 1022-03A3S, 1022-03B2S, 1022-03B4T, 1022-03C1S, 1022-04H2CS, 1022-04H3BS, 1022-O3H2T, 1022-03L4BS, 1022-03L3DS, 1022-03M1DS, 1022-03M2DS, 1022-03J3T, 1022-03L2T, 1022-O3N4T, 1022-03P4T, 1022-03O3T, 1022-04K3S, 1022-04M1S, 1022-05H2BS, 1022-05H2CS, 1022-05E4S, 1022-05F2S, 1022-05K1S, 1022-05L1S, 1022-05IT, 1022-06DT, 1022-06ET, 1022-06FT, 1022-06I3AS, 1022-06J4CS, 1022-06O1BS, 1022-06P1CS, 1022-7AT, 1022-7A4BS, 1022-7A4CS, 1022-7B2DS, 1022-08GT, 1022-08IT, 1022-09AT, 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S, 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S, 1022-13H, 1022-24O, 1022-24O2S, 1022-24P2S, 1022-24P4S, 1022-25H, 1022-32B3S, 1022-32D1S, 1022-32D4AS, 1022-32D4DS, and 1022-35M.

The purpose of this Class I review is to identify, classify, and evaluate the previously conducted cultural resource inventories and archaeological sites in the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

The project area in which Kerr-McGee Onshore's 73 proposed NBU well locations occur was previously inventoried by MOAC in 2007 for the Class III inventory of Township 10 South, Range 22 East (Montgomery 2008; U-07-MQ-1438b,s,p). A file search was completed by consulting MOAC's Class I existing data review of 459 square miles (293,805 acres) covering the Greater NBU study area between Bonanza and Ouray in Uintah County, northeastern Utah (Patterson et al. 2008). Kerr-McGee Oil & Gas Onshore LP proposes to explore and develop oil and natural gas resources throughout the area. Record searches were performed for this Class I project by Marty Thomas at the Utah State Historic Preservation Office (SHPO) on various dates between June 14, 2006 and January 27, 2007. The results of this Class I data review and Class III inventory indicated that no previously recorded sites occur in the current project area.

DESCRIPTION OF THE PROJECT AREA

The project area is situated west of the White River and both sides of Bitter Creek in the Uinta Basin. The legal description is Township 10S, Range 22E, Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 24, 25, 32, 36; Township 11S, Range 22E, Sections 1 and 2 (Figures 1, 2 and 3; Table 1). Land status is public land administered by the Bureau of Land Management (BLM) Vernal Field Office and School and Institutional Trust Lands Administration (SITLA) property.

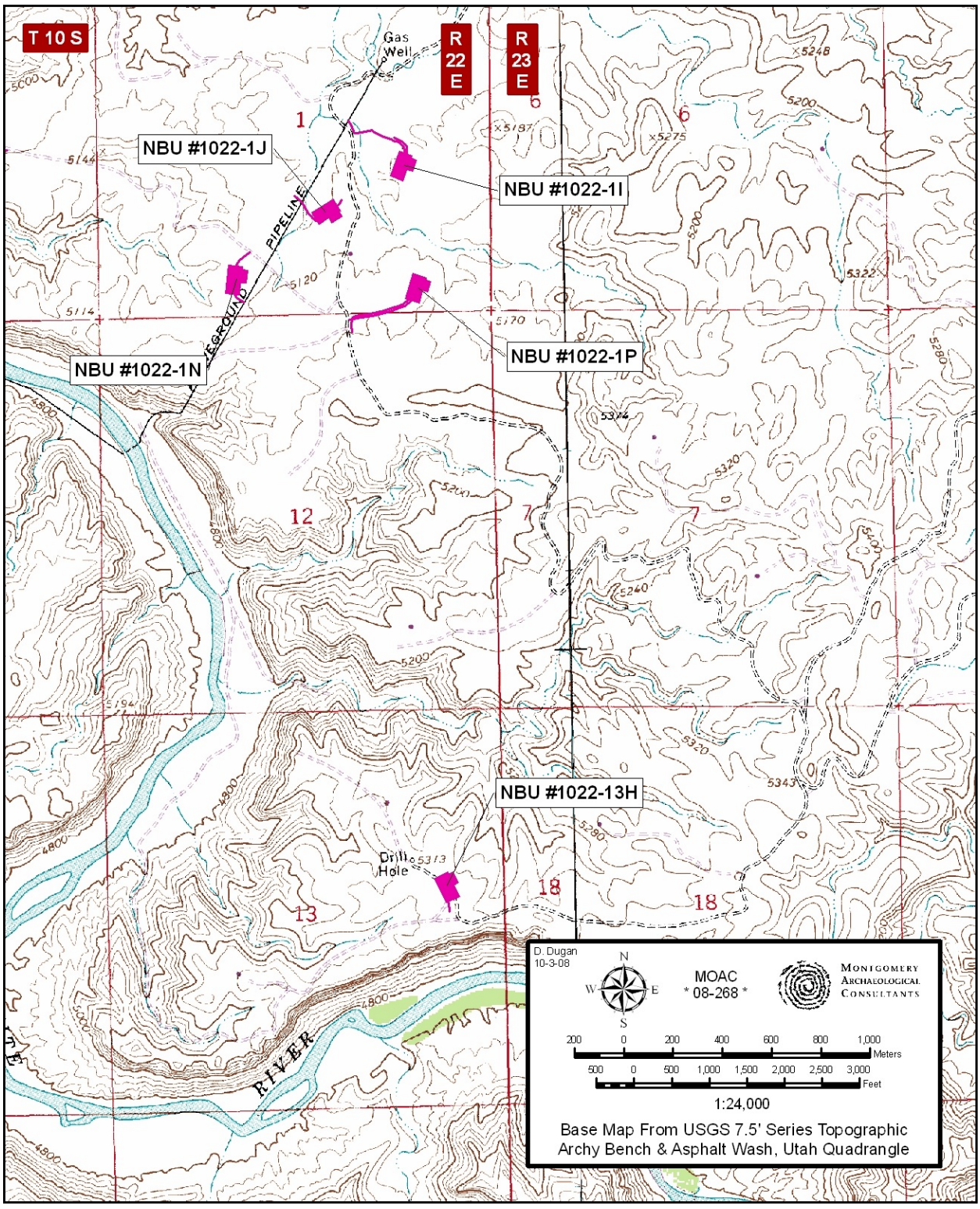


Figure 1. Location of Kerr-McGee Onshore’s Well Pads in T10S, R22E.

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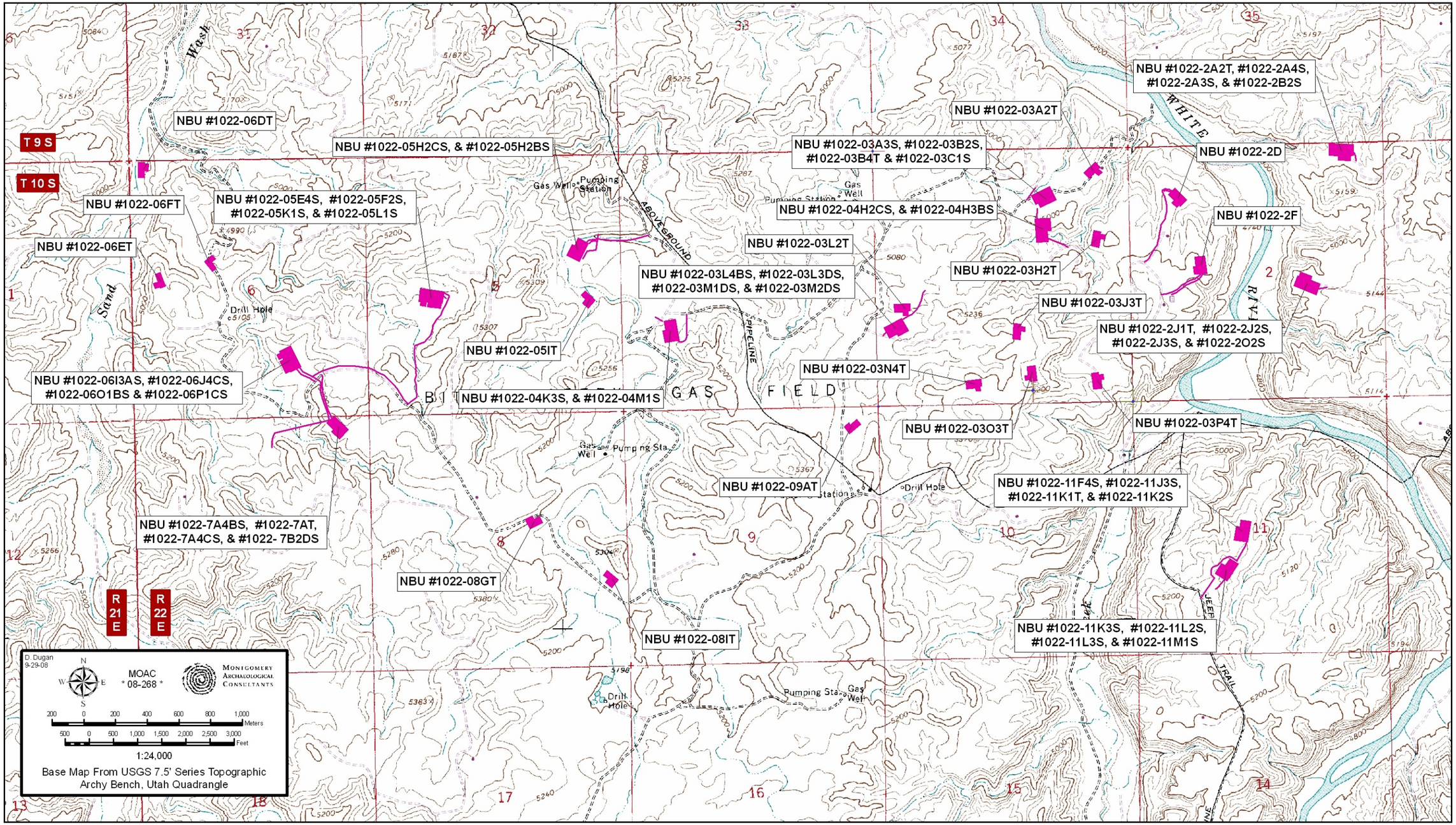

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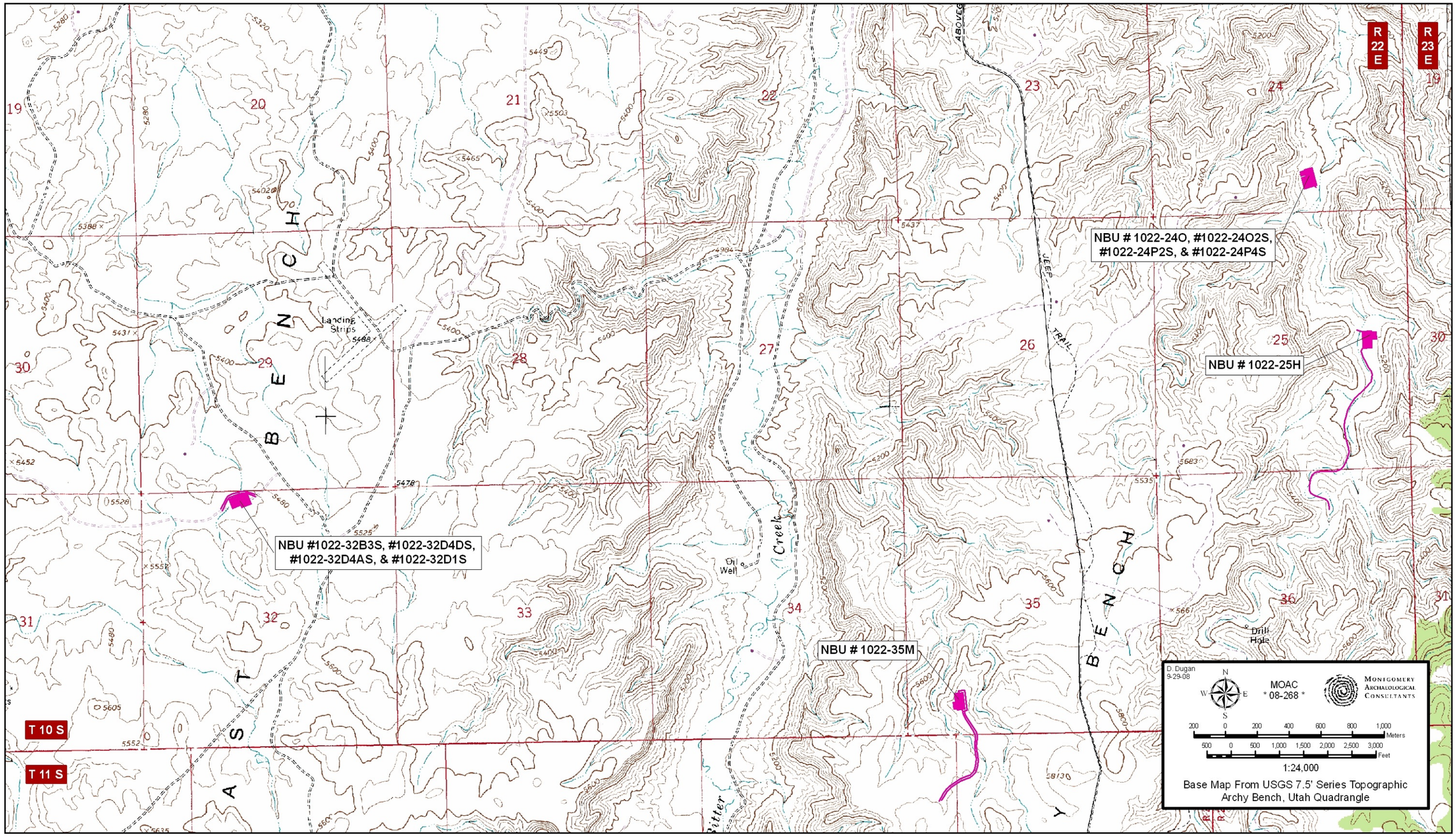


Table 1. Kerr-McGee Onshore’s 73 NBU Well Locations.

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-1I	T10S, R22E, Sec. 1 NE/SE	Pipeline: 1000 ft Access: 200 ft	None
NBU 1022-1J	T10S, R22E, Sec. 1 NW/SE	Pipeline: 400 ft Access: 50 ft	None
NBU 1022-1N	T10S, R22E, Sec. 1 SE/SW	Pipeline: 150 ft Access: 200 ft	None
NBU 1022-1P	T10S, R22E, Sec. 1 SE/SE	Pipeline: 1050 ft Access: 1000 ft	None
NBU 1022-2A2T, 1022-2A4S 1022-243S, 1022-2B2S	T10S, R22E, Sec. 2 NE/NE	Access: 200 ft	None
NBU 1022-2D	T10S, R22E, Sec. 2 NW/NW	Pipeline: 1600 ft	None
NBU 1022-2F	T10S, R22E, Sec. 2 SE/NW	Pipeline: 800 ft Access: 1000 ft	None
NBU 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-202S	T10S, R22E, Sec. 2 NW/SE	Pipeline: 200 ft	None
NBU 1022-03A2T	T10S, R22E, Sec. 3 NE/NE	None	None
NBU1022-03A3S, 1022-03B2S 1022-03B4T, 1022-03C1S	T10S, R22E, Sec. 3 NW/NE	None	None
NBU 1022-04H2CS 1022-04H3BS	T10S, R22E, Sec. 3 SW/NE	Pipeline: 450 ft Access: 200 ft	None
NBU 1022-03H2T	T10S, R22E, Sec. 3 SE/NE	None	None
NBU 1022-03J3T	T10S, R22E, Sec. 3 NW/SE	None	None
NBU 1022-03L2T	T10S, R22E, Sec. 3 NW/SW	None	None
NBU 1022-03L4BS, 1022-03L3DS 1022-03M1DS, 1022-03M2DS	T10S, R22E, Sec. 3 NW/SW	Pipeline: 800 ft Access: 100 ft	None
NBU 1022-03N4T	T10S, R22E, Sec. 3 SE/SW	None	None
NBU 1022-03O3T	T10S, R22E, Sec. 3 SW/SE	None	None
NBU 1022-03P4T	T10S, R22E, Sec. 3 SE/SE	None	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-04K3S, 1022-04M1S	T10S, R22E, Sec. 4 NW/SW	Pipeline: 200 ft Access: 600 ft	None
NBU 1022-05H2CS, 1022-05H2BS	T10S, R22E, Sec. 5 SE/NE	Pipeline: 800 ft Access: 1200 ft	None
NBU 1022-05E4S, 1022-05F2S 1022-05K1S, 1022-05L1S	T10S, R22E Sec. 5 NE/SW	Pipeline: 4800 ft Access: 100 ft	None
NBU 1022-05IT	T10S, R22E, Sec. 5 NE/SE	None	None
NBU 1022-06DT	T10S, R22E, Sec. 6 NW/NW	None	None
NBU 1022-06ET	T10S, R22E, Sec. 6 SW/NW	None	None
NBU 1022-06FT	T10S, R22E, Sec. 6 SE/NW	None	None
NBU 1022-06I3AS, 1022-06J4CS 1022-06O1BS, 1022-06P1CS	T10S, R22E, Sec. 6 SW/SE	Pipeline: 1400 ft Access: 450 ft	None
NBU 1022-7A4BS, 1022-7AT 1022-7A4CS, 1022-7B2DS	T10S, R22E, Sec. 7 NE/NE	Pipeline: 1300 ft Access: 1000 ft	None
NBU 1022-08GT	T10SS, R22E, Sec. 8 SW/NE	None	None
NBU 1022-08IT	T10S, R22E, Sec. 8 NE/SE	None	None
NBU 1022-09AT	T10S, R22E, Sec. 9 NE/NE	None	None
NBU 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 1600 ft	None
NBU 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 500 ft Access: 250 ft	None
NBU 1022-13H	T10S, R22E, Sec. 13 SE/NE	Pipeline: 100 ft	
NBU 1022-24O, 1022-24O2S 1022-24P2S, 1022-24P4S	T10S, R22E, Sec. 24 SW/SE	None	None
NBU 1022-25H	T10S, R22E, Sec. 25 SE/NE	Pipeline: 4000 ft	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-32B3S, 1022-32D4DS 1022-3-2D4AS, 1022-32D1S	T10S, R22E, Sec. 32 NE/NW	Pipeline: 900 ft Access: 800 ft	None
NBU 1022-35M	T10S, R22E, Sec. 35 SW/SW	Pipeline: 2750 ft Access: 2200 ft	None

Environmental Setting

The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits, which include Paleocene age deposits and Eocene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities. Specifically, the inventory area is situated south of the White River and on both sides of Cottonwood Wash. Elevation ranges from 5080 to 5680 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, and prickly pear cactus. Modern disturbances include livestock grazing, roads, and oil/gas development.

CLASS I RESULTS AND RECOMMENDATIONS

The Class I literature review of Kerr-McGee Onshore's 73 proposed NBU well locations and associated pipeline/access corridors in Township 10S, Range 22E resulted in the location of no cultural resources. Based on the findings, a determination of "no adverse impact" is recommended for the undertaking pursuant to Section 106, CFR 800.

REFERENCES CITED

Montgomery, J. A.
2007 Cultural Resource Management Report for Kerr-McGee Oil and Gas Onshore LP's Greater NBU Blocks in Township 10 South, Range 22 East, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Report No. U-07-MQ-1438bsp.

Patterson, J. J., J. Fritz, K. Lower-Eskelson, R. Stash and A. Thomas
2008 NBU Class I Existing Data Review for Kerr-McGee Oil & Gas Onshore LP, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah.

Stokes, W. L.
1986 *Geology of Utah*. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

IPC #08-221

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Twin Wells "NBU #1022-3A2T, #1022-3B4T, NBU #1022-3C1S, NBU #1022-3B2S, NBU #1022-3AS3, #1022-3H2T, #1022-3JIT, #1022-3L2T, #1022-3J3T, #1022-3N4T, #1022-3O3T, & #1022-3P4T"
(Sec. 3, T 10 S, R 22 E)

Archy Bench
Topographic Quadrangle
Uintah County, Utah

October 6, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Raleen White of Kerr McGee Oil & Gas Onshore LP and authorized by the BLM Vernal Field Office, a paleontological reconnaissance survey of Kerr McGee's proposed twin wells "NBU #1022-3A2T, #1022-3B4T, NBU #1022-3C1S, NBU #1022-3B2S, NBU #1022-3AS3, #1022-3H2T, #1022-3JIT, #1022-3L2T, #1022-3J3T, #1022-3N4T, #1022-3O3T, & #1022-3P4T" (Sec. 3, T 10 S, R 22 E) was conducted by Stephen Sandau and Dan Burk on September 20, 2008. The reconnaissance survey was conducted under the Utah BLM Paleontological Resources Use Permit #UT08-006C. This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the US Department of the Interior Bureau of Land Management, paleontologically sensitive geologic formations in BLM lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);

2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579);

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- ***Class 1* – Very Low**. Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- ***Class 2* – Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc…)
- ***Class 3* – Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
    - ***Class 3a* – Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
    - ***Class 3b* – Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but

little information about the paleontological resources of the unit or the area is known.

- ***Class 4* – High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
    - ***Class 4a* –** Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
    - ***Class 4b* –** Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- ***Class 5* – Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
    - ***Class 5a* -** Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
    - ***Class 5b*** - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

LOCATION

Kerr McGee's proposed twin wells "NBU #1022-3A2T, #1022-3B4T, NBU #1022-3C1S, NBU #1022-3B2S, NBU #1022-3AS3, #1022-3H2T, #1022-3JIT, #1022-3L2T, #1022-3J3T, #1022-3N4T, #1022-3O3T, & #1022-3P4T" (Sec. 3, T 10 S, R 22 E) are on land managed by the BLM in the Bitter Creek area of East Bench, on the west bank of the White River, approximately 15.5 miles southeast of Ouray, Utah. The project area can be found on the Archy Bench 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

NBU #1022-3A2T
The proposed well is a twin of "NBU #86J" located in the NE/NE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). The well pad is located on top of a hill near the White River covered in colluvium and weathered tan sandstone outcrops. No fossils were found.

NBU #1022-3B4T, NBU #1022-3C1S, NBU #1022-3B2S, & NBU #1022-3AS3
The proposed multi-well expansion is on the existing well pad for "NBU #229" located in the NW/NE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). Immediately adjacent to the well pad is a 1-2m thick outcrop of tan sandstone interbedded with a weaker layer possibly maroon siltstone which has no visible outcrop. No fossils were found.

NBU #1022-3H2T
The proposed well is a twin of "NBU #230A" located in the SE/NE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). The well pad is located on top of a colluvium covered hill derived from the underlying tan, medium-grained sandstone. No fossils were found.

NBU #1022-3J1T
The proposed well is a twin of "NBU #287" in the SW/NE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). The well pad is located on the side of a hill with a 0.5-1m thick maroon siltstone interbedded with a 2-3m thick tan sandstone and a 1-2m thick green mudstone. No fossils were found.

NBU #1022-3L2T
The proposed well is a twin of "NBU #288"located in the NW/SW quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1) . The well pad is located on tan, medium-grained sandstone interbedded with green mudstone. No fossils were found.

NBU #1022-3J3T
The proposed well is a twin of "NBU #164" located in the NW/SE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). The well pad is located near the top of a hill on interbedded green mudstone and tan sandstone. No fossils were found.

NBU #1022-3N4T
The proposed well is a twin to "NBU #289" located in the SE/SW quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). Immediately adjacent to the well pad are 2m thick outcrops of tan, medium-grained sandstone with green mudstone above and below. No fossils were found.

NBU #1022-3O3T
The proposed well is a twin of "NBU #290" located in the SW/SE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). The well pad is located at the top of a hill underlain by tan, medium-grained sandstone. No fossils were found.

NBU #1022-3P4T
The proposed well is a twin of "NBU #37XP" located in the SE/SE quarter-quarter section of Sec. 3, T 10 S, R 22 E (Figure 1). The well pad is located on tan, medium-grained sandstone interbedded with maroon siltstone. Trace fossil burrows were found in the sandstone.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
"NBU #1022-3A2T" (Sec. 3, T 10 S, R 22 E)	The well pad is located on top of a hill near the White River covered in colluvium and weathered tan sandstone outcrops.	No fossils were found. **Class 3a**

"NBU #1022-3B4T", "NBU #1022-3C1S", "NBU #1022-3B2S", & "NBU #1022-3AS3" (Sec. 3, T 10 S, R 22 E)	Immediately adjacent to the well pad is a 1-2m thick outcrop of tan sandstone interbedded with a weaker layer possibly maroon siltstone which has no visible outcrop.	No fossils were found. **Class 3a**
"NBU #1022-3H2T" (Sec. 3, T 10 S, R 22 E)	The well pad is located on top of a colluvium covered hill derived from the underlying tan, medium-grained sandstone.	No fossils were found. **Class 3a**
"NBU #1022-3JIT" (Sec. 3, T 10 S, R 22 E)	The well pad is located on the side of a hill with a 0.5-1m thick maroon siltstone interbedded with a 2-3m thick tan sandstone and a 1-2m thick green mudstone.	No fossils were found. **Class 3a**
"NBU #1022-3L2T" (Sec. 3, T 10 S, R 22 E)	The well pad is located on tan, medium-grained sandstone interbedded with green mudstone.	No fossils were found. **Class 3a**
"NBU #1022-3J3T" (Sec. 3, T 10 S, R 22 E)	The well pad is located near the top of a hill on interbedded green mudstone and tan sandstone.	No fossils were found. **Class 3a**
"NBU #1022-3N4T" (Sec. 3, T 10 S, R 22 E)	Immediately adjacent to the well pad are 2m thick outcrops of tan, medium-grained sandstone with green mudstone above and below.	No fossils were found. **Class 3a**
"NBU #1022-3O3T" (Sec. 3, T 10 S, R 22 E)	The well pad is located at the top of a hill underlain by tan, medium-grained sandstone.	No fossils were found. **Class 3a**
"NBU #1022-3P4T" (Sec. 3, T 10 S, R 22 E)	The well pad is located on tan, medium-grained sandstone interbedded with maroon siltstone.	Trace fossil burrows were found in the sandstone. **Class 3a**

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee’s proposed twin wells “NBU #1022-3A2T, #1022-3B4T, NBU #1022-3C1S, NBU #1022-3B2S, NBU #1022-3AS3, #1022-3H2T, #1022-3JIT, #1022-3L2T, #1022-3J3T, #1022-3N4T, #1022-3O3T, & #1022-3P4T” (Sec. 3, T 10 S, R 22 E). The twin wells covered in this report showed no signs of vertebrate fossils. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formational sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, Operator (Lease Holder) will report all occurrences of paleontological resources discovered to a geologist with the Vernal Field Office of the BLM. The operator is responsible for informing all persons in the areas who are associated with this project of the requirements for protecting paleontological resources. Paleontological resources found on the public lands are recognized by the BLM as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage. These resources are afforded protection under 43 CFR 3802 and 3809, and penalties possible for the collection of vertebrate fossils are under 43 CFR 8365.1-5.

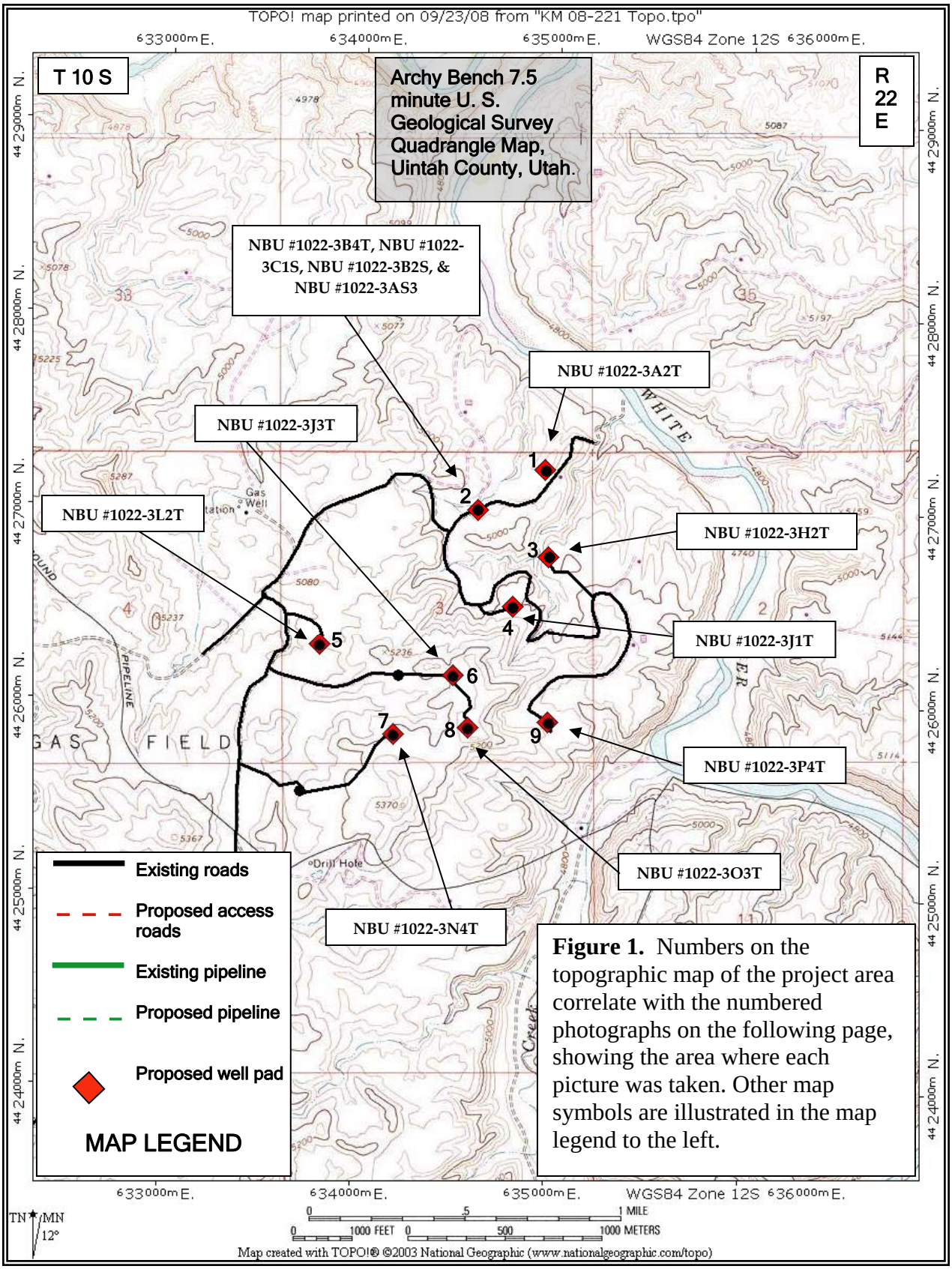
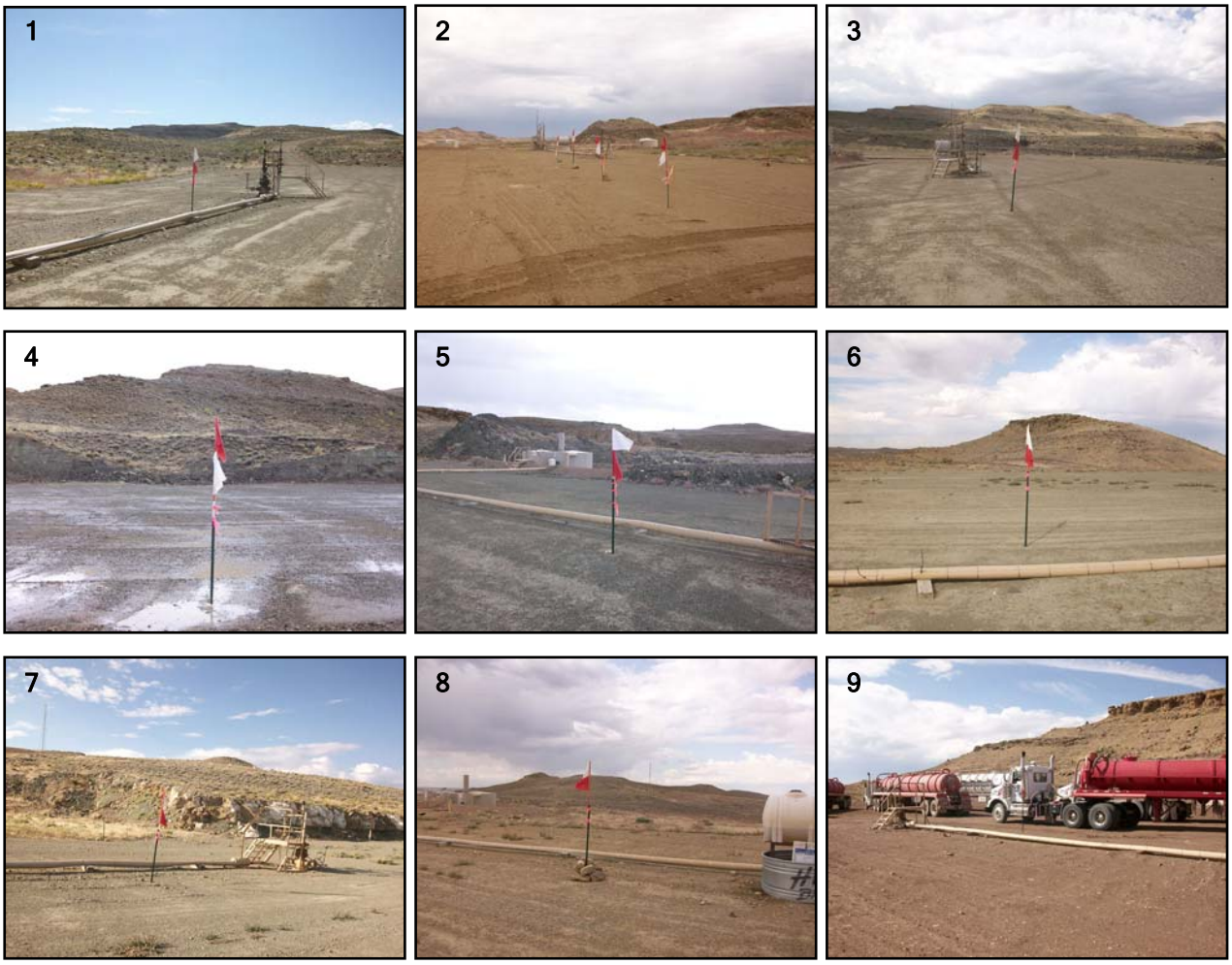


Figure 1. Numbers on the topographic map of the project area correlate with the numbered photographs on the following page, showing the area where each picture was taken. Other map symbols are illustrated in the map legend to the left.

Figure 1. *continued…*



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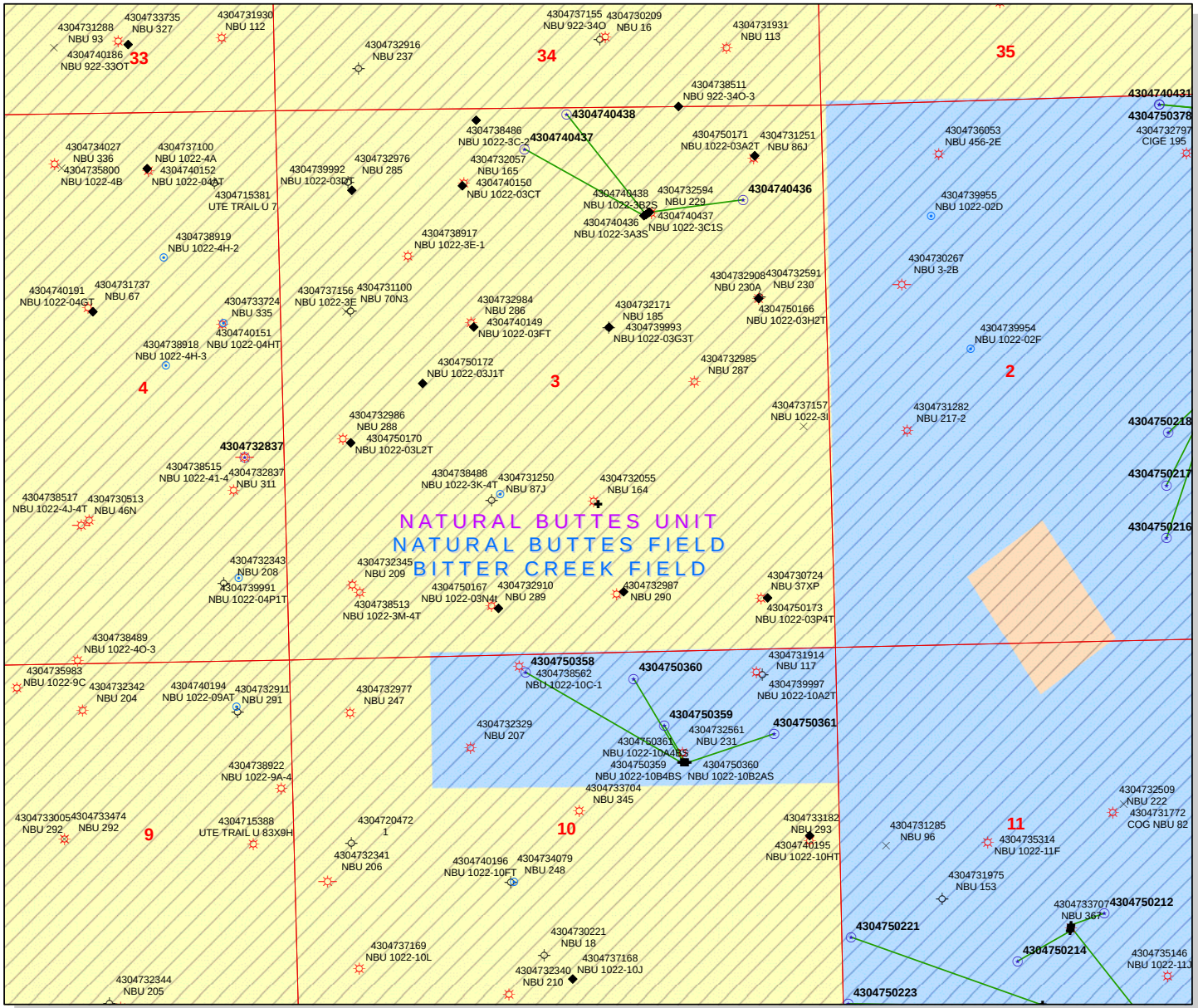

API Number: 4304750438

Well Name: NBU 1022-03J3T

Township 10.0 S Range 22.0 E Section 3

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

Fields
STATUS
ACTIVE
COMBINED
Sections

Wells Query Events
<all other values>
GIS_STAT_TYPE
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DRL
GI
GS
LA
NEW
OPS
PA
PGW
POW
RET
SGW
SOW
TA
TW
WD
WI
WS

Location Map

1,200 600 0 1,200 Feet

1:12,000

'APIWellNo:43047504380000'

API Well No: 43047504380000

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

June 1, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

43-047-50438 NBU 1022-03J3T Sec 3 T10S R22E 1456 FSL 2277 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:6-1-09

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/21/2009 **API NO. ASSIGNED:** 43047504380000

WELL NAME: NBU 1022-03J3T

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: NWSE 3 100S 220E **Permit Tech Review:** ☑

SURFACE: 1456 FSL 2277 FEL **Engineering Review:** ☑

BOTTOM: 1456 FSL 2277 FEL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 39.97465 **LONGITUDE:** -109.42409

UTM SURF EASTINGS: 634575.00 **NORTHINGS:** 4425923.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 01191A **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 1022-03J3T
API Well Number: 43047504380000
Lease Number: UTU 01191A
Surface Owner: FEDERAL
Approval Date: 6/18/2009

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling production from the Wasatch and Mesaverde formations is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

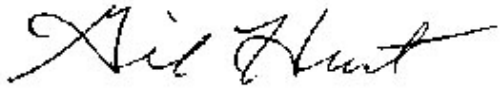
API Well No: 43047504380000

Notification Requirements:
Notify the Division within 24 hours of spudding the well.
- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.
- Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

Reporting Requirements:
All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047504380000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03J3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1456 FSL 2277 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 3 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/18/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: June 23, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/17/2010

RECEIVED June 17, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources
Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047504380000

API: 43047504380000
Well Name: NBU 1022-03J3T
Location: 1456 FSL 2277 FEL QTR NWSE SEC 3 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 6/18/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 6/17/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: June 23, 2010

By: Dustin Doucet

RECEIVED June 17, 2010

API Well No: 43047504380000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03J3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1456 FSL 2277 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 3 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/18/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
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	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: June 23, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/17/2010

RECEIVED June 17, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources
Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047504380000

API: 43047504380000
Well Name: NBU 1022-03J3T
Location: 1456 FSL 2277 FEL QTR NWSE SEC 3 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 6/18/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

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- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 6/17/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: June 23, 2010

By: Dustin Doucet

RECEIVED June 17, 2010

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03J3T

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1456 FSL 2277 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/18/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 05/16/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/13/2011

RECEIVED May. 13, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047504380000

API: 43047504380000
Well Name: NBU 1022-03J3T
Location: 1456 FSL 2277 FEL QTR NWSE SEC 03 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 6/18/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

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- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Andy Lytle **Date:** 5/13/2011
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED May. 13, 2011

Sundry Number: 25900 API Well Number: 43047504380000

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/1/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
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	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator is requesting the approval of the following changes to the originally approved APD: 1. Change the Well Name = from NBU 1022-03J3T to NBU 1022-3J4CS / 2. Surface & Bottom Hole Location Change (New Plat is Attached) / a. From = 1456 FSL/ 2277 FEL To = 1476 FSL/ 2294 FEL / 3. Proposed Total Depth (New Drilling Program Attached) / 4. Surface Hole Size and Casing Grade (New Wellbore Diagram Attached) / 5. Change to a Directional Well (Directional Drilling Survey Attached) / 6. Surface Use Plan of Operation (Updated Plan Attached)

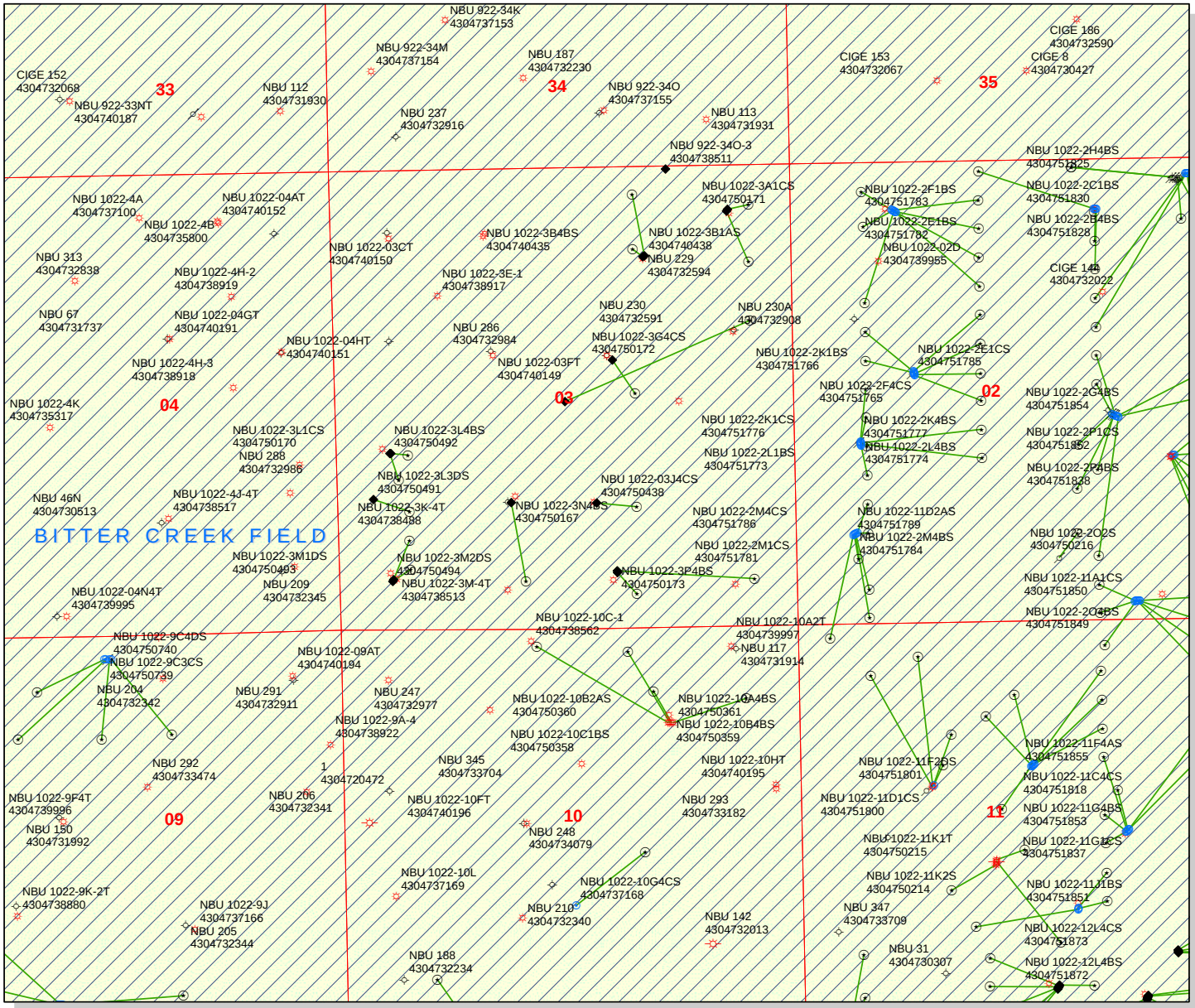
Approved by the Utah Division of Oil, Gas and Mining

Date: June 04, 2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II
SIGNATURE N/A		**DATE** 5/21/2012

RECEIVED: May. 21, 2012



API Number: 4304750438

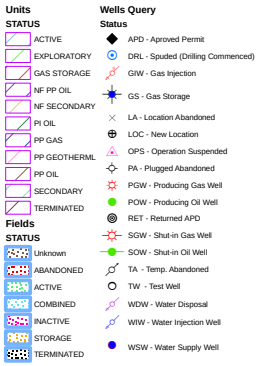
Well Name: NBU 1022-03J4CS

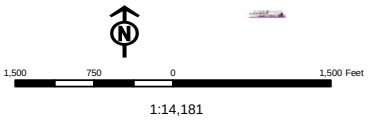
Township T1.0 . Range R2.2 . Section 03

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

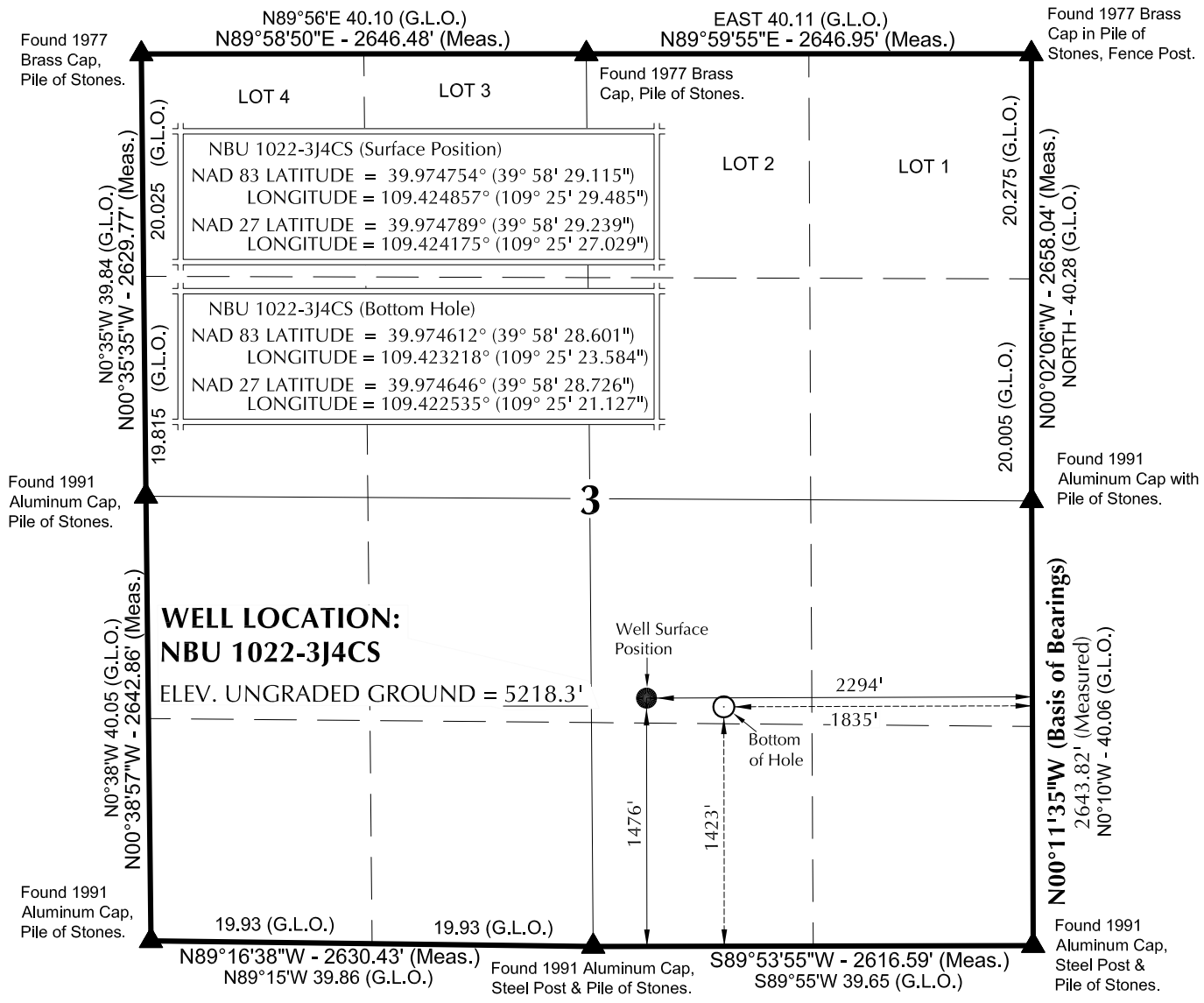




1:14,181

RECEIVED: May. 23, 2012

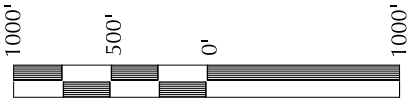
T10S, R22E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S83°34'40"E 462.48' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SCALE

N

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

11-13-11

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 1022-3J

NBU 1022-3J4CS
WELL PLAT
1423' FSL, 1835' FEL (Bottom Hole)
NW ¼ SE ¼ OF SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 11-9-11	SURVEYED BY: J.W.	SHEET NO: 4
DATE DRAWN: 11-14-11	DRAWN BY: J.G.C.	
SCALE: 1" = 1000'	Date Last Revised:	4 OF 18

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-3J
WELLS - NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS, NBU 1022-3O1BS
Section 3, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 4.0 miles to a Class D County road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 4.6 miles to a second Class D County Road to the east. Exit right and proceed in an easterly direction along the second Class D County Road approximately 0.5 miles to the proposed NBU 1022-3K pad. Proceed in an easterly direction through the proposed NBU 1022-3K pad approximately 480 feet to an existing service road to the east. Proceed along the service road in an easterly direction approximately 0.1 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 56.5 miles in a southerly direction.

RECEIVED: May. 21, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3J4CS

Surface: 1476 FSL / 2294 FEL NWSE
BHL: 1423 FSL / 1835 FEL NWSE

Section 3 T10S R22E

Unitah County, Utah
Mineral Lease: UTU-01191A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,350'	
Birds Nest	1,521'	Water
Mahogany	2,021'	Water
Wasatch	4,372'	Gas
Mesaverde	6,714'	Gas
Sego	8,830'	Gas
Castlegate	8,997'	Gas
Blackhawk	9,434'	Gas
TVD	10,034'	
TD	10,075'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

5. Drilling Fluids Program:

Please refer to the attached Drilling Program

6. Evaluation Program:

Please refer to the attached Drilling Program

RECEIVED: May. 21, 2012

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 10034' TVD, approximately equals 6,622 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,461 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

RECEIVED: May. 21, 2012

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

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Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

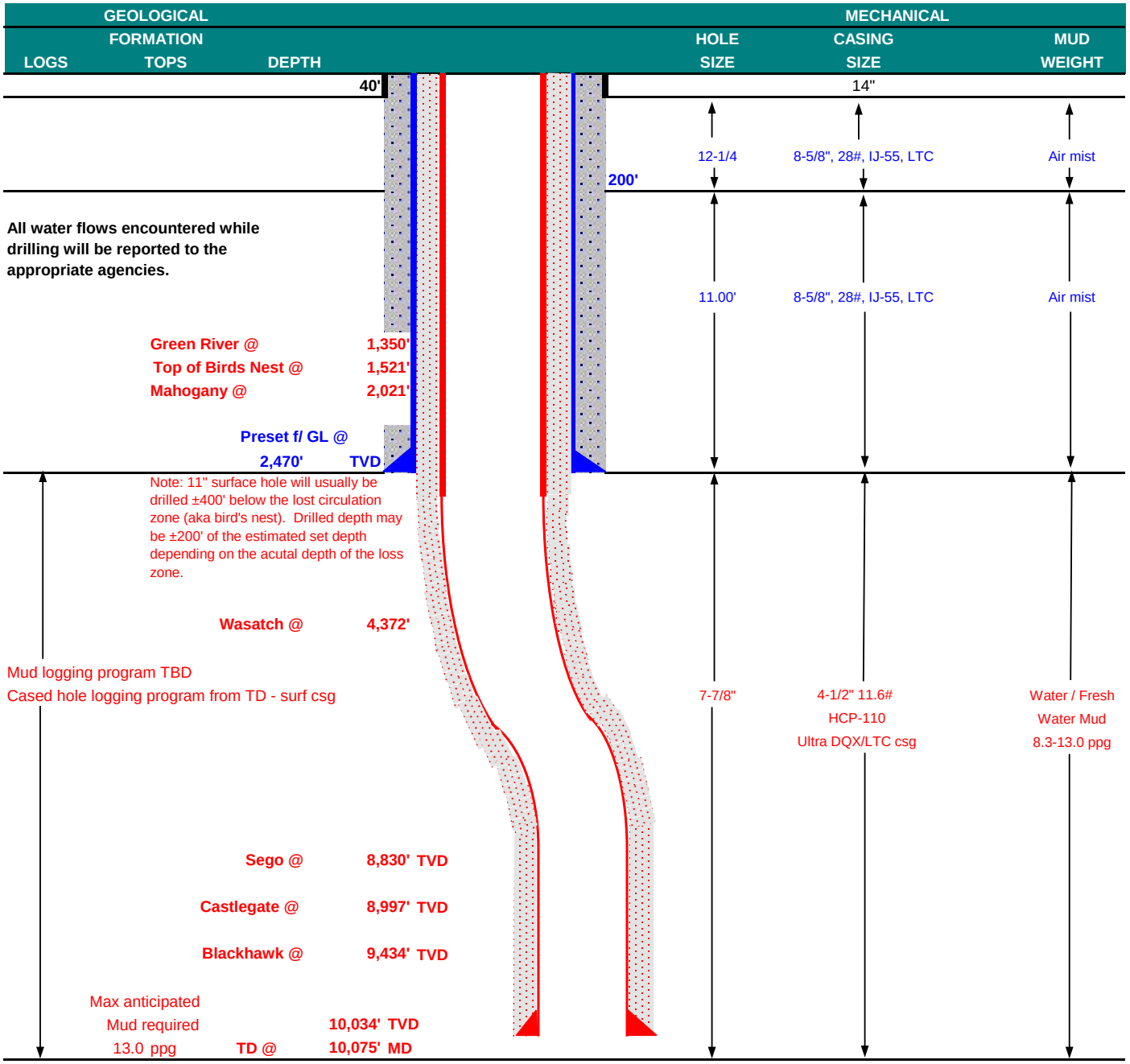
Please refer to the attached Drilling Program.

RECEIVED: May. 21, 2012

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	February 15, 2012		
WELL NAME	**NBU 1022-3J4CS**			TD	10,034' TVD	10,075' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	5218.3
SURFACE LOCATION	NWSE	1476 FSL	2294 FEL	Sec 3	T 10S	R 22E	
	Latitude:	39.974754	Longitude:	-109.424857		NAD 83	
BTM HOLE LOCATION	NWSE	1423 FSL	1835 FEL	Sec 3	T 10S	R 22E	
	Latitude:	39.974612	Longitude:	-109.423218		NAD 83	
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.						



RECEIVED: May. 21, 2012

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION LTC	TENSION DQX
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,470	28.00	IJ-55	LTC	2.18	1.63	5.75	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.28		3.92
	4-1/2"	5,000	to	10,075'	11.60	HCP-110	LTC	1.19	1.28	5.91	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,970'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,865'	Premium Lite II +0.25 pps	300	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	6,210'	50/50 Poz/G + 10% salt + 2% gel	1,470	35%	14.30		1.31
			+ 0.1% R-3					

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

Nick Spence / Danny Showers / Chad Loesel

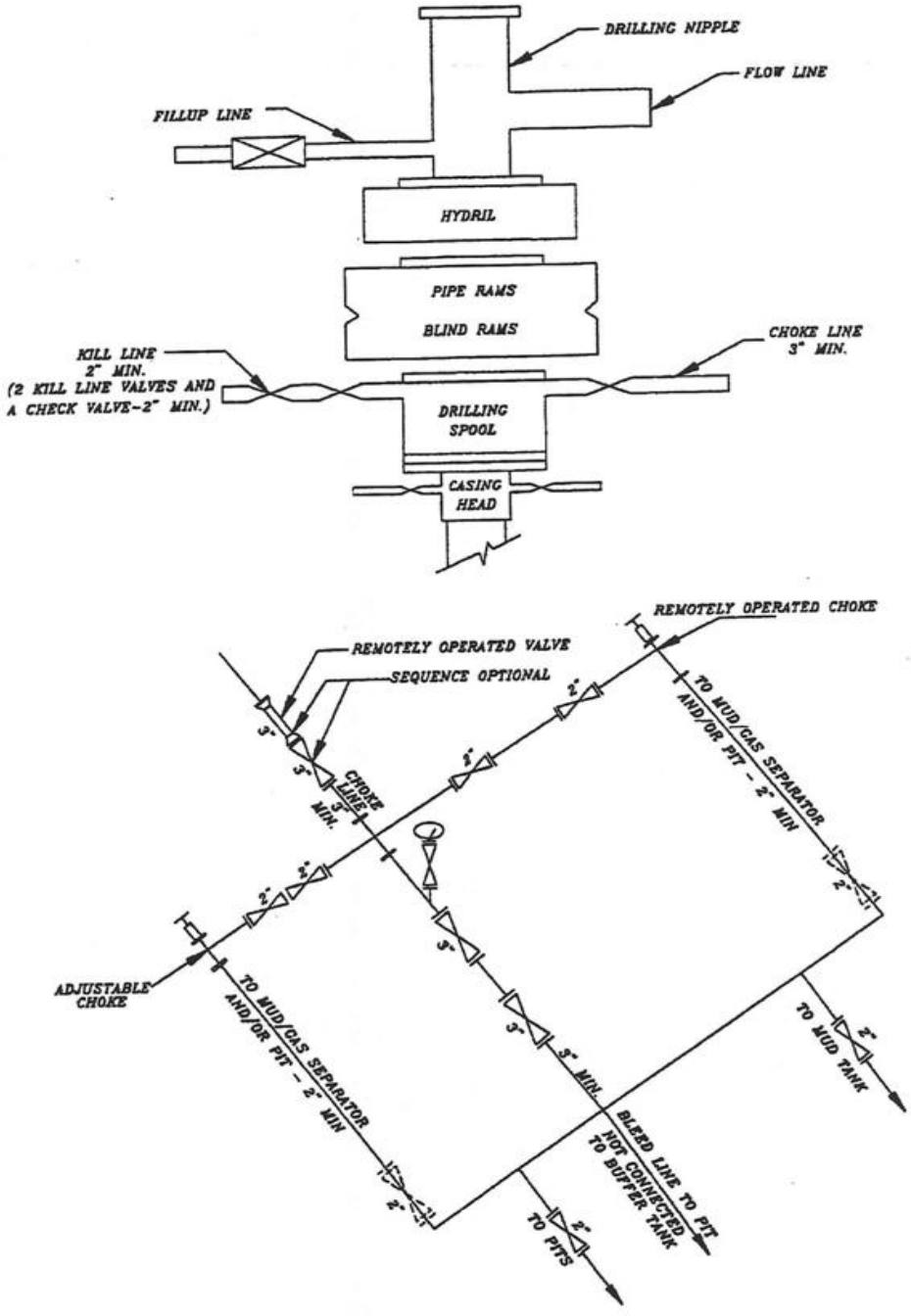
DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

NBU 1022-3J Pad- Directional Drilling Blackhawk Program (3 wells) Approved by Drilling REVISED- 031212.xlsx

RECEIVED: May. 21, 2012

EXHIBIT A
NBU 1022-3J4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

RECEIVED: May. 21, 2012

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-3J PAD
Well: NBU 1022-3J4CS
Wellbore: OH
Design: PLAN #1

Anadarko Petroleum Corporation

T M

Azimuths to True North
Magnetic North: 10.96°

Magnetic Field
Strength: 52259.0snT
Dip Angle: 65.84°
Date: 02/08/2012
Model: IGRF2010

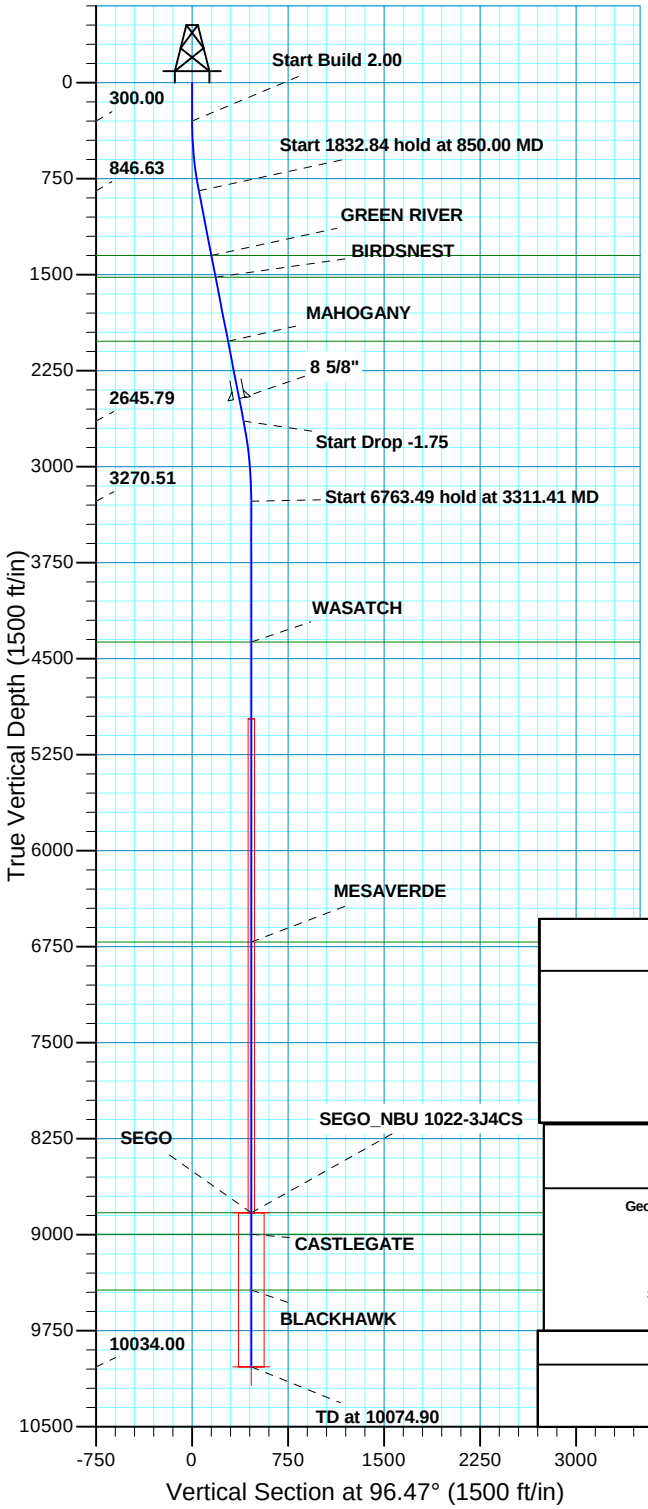
WELL DETAILS: NBU 1022-3J4CS

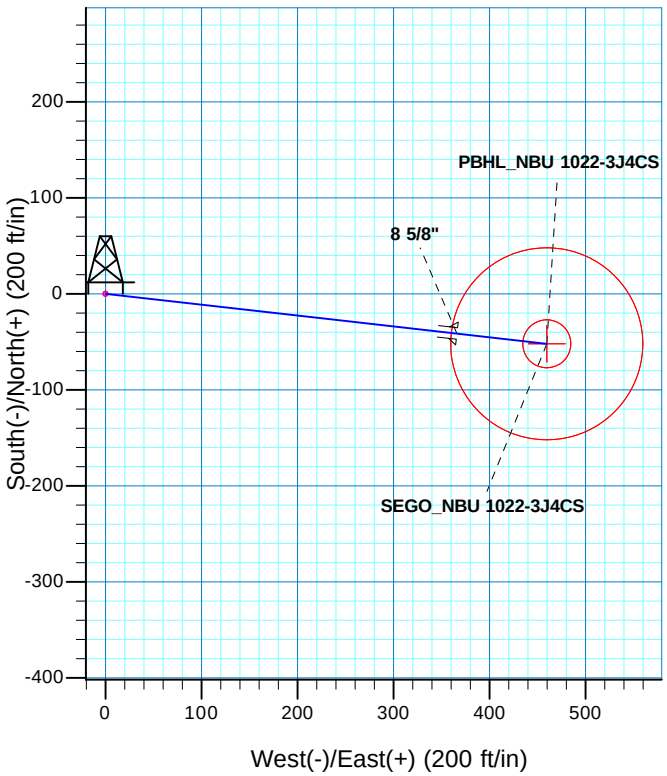
GL 5218 & KB 4 @ 5222.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14520765.26	2081911.63	39.974789	-109.424175

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	8830.00	-52.08	459.57	14520721.31	2082372.05	39.974646	-109.422535	Circle (Radius: 25.00)
	- plan hits target center							
PBHL	10034.00	-52.08	459.57	14520721.31	2082372.05	39.974646	-109.422535	Circle (Radius: 100.00)
	- plan hits target center							





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
850.00	11.00	96.47	846.63	-5.93	52.30	2.00	96.47	52.63	
2682.84	11.00	96.47	2645.79	-45.31	399.80	0.00	0.00	402.36	
3311.41	0.00	0.00	3270.51	-52.08	459.57	1.75	180.00	462.51	
10074.90	0.00	0.00	10034.00	-52.08	459.57	0.00	0.00	462.51	PBHL_NBU 1022-3J4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 3 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1350.00	1362.79	GREEN RIVER
1521.00	1536.99	BIRDSNEST
2021.00	2046.35	MAHOGANY
4372.00	4412.90	WASATCH
6714.00	6754.90	MESAVERDE
8830.00	8870.90	SEGO
8997.00	9037.90	CASTLEGATE
9434.00	9474.90	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2471.00	2504.78	8 5/8"	8.625

Plan: PLAN #1 (NBU 1022-3J4CS/OH)

Created By: RobertScott Date: 13:46, February 08 2012

REC

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 1022-3J PAD
NBU 1022-3J4CS

OH

Plan: PLAN #1

Standard Planning Report

08 February, 2012

Anadarko Petroleum Corporation

RECEIVED: May. 21, 2012

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-3J4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Site:	NBU 1022-3J PAD	**North Reference:**	True
Well:	NBU 1022-3J4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 1022-3J PAD, SECTION 3 T10S R22E

Site Position:		**Northing:**	14,520,765.26 usft	**Latitude:**	39.974789
From:	Lat/Long	**Easting:**	2,081,911.63 usft	**Longitude:**	-109.424175
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.01 °

Well NBU 1022-3J4CS, 1476 FSL 2294 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,520,765.26 usft	**Latitude:**	39.974789
	+E/-W	0.00 ft	**Easting:**	2,081,911.63 usft	**Longitude:**	-109.424175
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,218.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/08/12	10.96	65.84	52,259

Design PLAN #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	96.47

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
850.00	11.00	96.47	846.63	-5.93	52.30	2.00	2.00	0.00	96.47	
2,682.84	11.00	96.47	2,645.79	-45.31	399.80	0.00	0.00	0.00	0.00	
3,311.41	0.00	0.00	3,270.51	-52.08	459.57	1.75	-1.75	0.00	180.00	
10,074.90	0.00	0.00	10,034.00	-52.08	459.57	0.00	0.00	0.00	0.00	PBHL_NBU 1022-3J4

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-3J4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Site:	NBU 1022-3J PAD	**North Reference:**	True
Well:	NBU 1022-3J4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	96.47	399.98	-0.20	1.73	1.75	2.00	2.00	0.00
500.00	4.00	96.47	499.84	-0.79	6.93	6.98	2.00	2.00	0.00
600.00	6.00	96.47	599.45	-1.77	15.59	15.69	2.00	2.00	0.00
700.00	8.00	96.47	698.70	-3.14	27.70	27.88	2.00	2.00	0.00
800.00	10.00	96.47	797.47	-4.90	43.25	43.52	2.00	2.00	0.00
850.00	11.00	96.47	846.63	-5.93	52.30	52.63	2.00	2.00	0.00
Start 1832.84 hold at 850.00 MD									
900.00	11.00	96.47	895.71	-7.00	61.78	62.17	0.00	0.00	0.00
1,000.00	11.00	96.47	993.87	-9.15	80.74	81.26	0.00	0.00	0.00
1,100.00	11.00	96.47	1,092.03	-11.30	99.70	100.34	0.00	0.00	0.00
1,200.00	11.00	96.47	1,190.20	-13.45	118.66	119.42	0.00	0.00	0.00
1,300.00	11.00	96.47	1,288.36	-15.59	137.62	138.50	0.00	0.00	0.00
1,362.79	11.00	96.47	1,350.00	-16.94	149.52	150.48	0.00	0.00	0.00
GREEN RIVER									
1,400.00	11.00	96.47	1,386.52	-17.74	156.58	157.58	0.00	0.00	0.00
1,500.00	11.00	96.47	1,484.69	-19.89	175.54	176.66	0.00	0.00	0.00
1,536.99	11.00	96.47	1,521.00	-20.69	182.55	183.72	0.00	0.00	0.00
BIRDSNEST									
1,600.00	11.00	96.47	1,582.85	-22.04	194.50	195.74	0.00	0.00	0.00
1,700.00	11.00	96.47	1,681.01	-24.19	213.46	214.82	0.00	0.00	0.00
1,800.00	11.00	96.47	1,779.17	-26.34	232.42	233.90	0.00	0.00	0.00
1,900.00	11.00	96.47	1,877.34	-28.49	251.37	252.98	0.00	0.00	0.00
2,000.00	11.00	96.47	1,975.50	-30.63	270.33	272.06	0.00	0.00	0.00
2,046.35	11.00	96.47	2,021.00	-31.63	279.12	280.91	0.00	0.00	0.00
MAHOGANY									
2,100.00	11.00	96.47	2,073.66	-32.78	289.29	291.15	0.00	0.00	0.00
2,200.00	11.00	96.47	2,171.82	-34.93	308.25	310.23	0.00	0.00	0.00
2,300.00	11.00	96.47	2,269.99	-37.08	327.21	329.31	0.00	0.00	0.00
2,400.00	11.00	96.47	2,368.15	-39.23	346.17	348.39	0.00	0.00	0.00
2,500.00	11.00	96.47	2,466.31	-41.38	365.13	367.47	0.00	0.00	0.00
2,504.78	11.00	96.47	2,471.00	-41.48	366.04	368.38	0.00	0.00	0.00
8 5/8"									
2,600.00	11.00	96.47	2,564.48	-43.53	384.09	386.55	0.00	0.00	0.00
2,682.84	11.00	96.47	2,645.79	-45.31	399.80	402.36	0.00	0.00	0.00
Start Drop -1.75									
2,700.00	10.70	96.47	2,662.65	-45.67	403.01	405.59	1.75	-1.75	0.00
2,800.00	8.95	96.47	2,761.18	-47.59	419.96	422.65	1.75	-1.75	0.00
2,900.00	7.20	96.47	2,860.18	-49.17	433.92	436.70	1.75	-1.75	0.00
3,000.00	5.45	96.47	2,959.57	-50.41	444.86	447.71	1.75	-1.75	0.00
3,100.00	3.70	96.47	3,059.25	-51.31	452.79	455.69	1.75	-1.75	0.00
3,200.00	1.95	96.47	3,159.12	-51.87	457.69	460.61	1.75	-1.75	0.00
3,300.00	0.20	96.47	3,259.10	-52.08	459.55	462.49	1.75	-1.75	0.00
3,311.41	0.00	0.00	3,270.51	-52.08	459.57	462.51	1.75	-1.75	0.00
Start 6763.49 hold at 3311.41 MD									
3,400.00	0.00	0.00	3,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
3,500.00	0.00	0.00	3,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
3,600.00	0.00	0.00	3,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
3,700.00	0.00	0.00	3,659.10	-52.08	459.57	462.51	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-3J4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Site:	NBU 1022-3J PAD	**North Reference:**	True
Well:	NBU 1022-3J4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,800.00	0.00	0.00	3,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
3,900.00	0.00	0.00	3,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,000.00	0.00	0.00	3,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,100.00	0.00	0.00	4,059.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,200.00	0.00	0.00	4,159.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,300.00	0.00	0.00	4,259.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,400.00	0.00	0.00	4,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,412.90	0.00	0.00	4,372.00	-52.08	459.57	462.51	0.00	0.00	0.00
WASATCH									
4,500.00	0.00	0.00	4,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,600.00	0.00	0.00	4,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,700.00	0.00	0.00	4,659.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,800.00	0.00	0.00	4,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
4,900.00	0.00	0.00	4,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,000.00	0.00	0.00	4,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,100.00	0.00	0.00	5,059.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,200.00	0.00	0.00	5,159.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,300.00	0.00	0.00	5,259.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,400.00	0.00	0.00	5,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,500.00	0.00	0.00	5,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,600.00	0.00	0.00	5,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,700.00	0.00	0.00	5,659.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,800.00	0.00	0.00	5,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
5,900.00	0.00	0.00	5,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,000.00	0.00	0.00	5,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,100.00	0.00	0.00	6,059.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,200.00	0.00	0.00	6,159.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,300.00	0.00	0.00	6,259.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,400.00	0.00	0.00	6,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,500.00	0.00	0.00	6,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,600.00	0.00	0.00	6,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,700.00	0.00	0.00	6,659.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,754.90	0.00	0.00	6,714.00	-52.08	459.57	462.51	0.00	0.00	0.00
MESAVERDE									
6,800.00	0.00	0.00	6,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
6,900.00	0.00	0.00	6,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,000.00	0.00	0.00	6,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,100.00	0.00	0.00	7,059.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,200.00	0.00	0.00	7,159.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,300.00	0.00	0.00	7,259.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,400.00	0.00	0.00	7,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,500.00	0.00	0.00	7,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,600.00	0.00	0.00	7,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,700.00	0.00	0.00	7,659.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,800.00	0.00	0.00	7,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
7,900.00	0.00	0.00	7,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,000.00	0.00	0.00	7,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,100.00	0.00	0.00	8,059.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,200.00	0.00	0.00	8,159.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,300.00	0.00	0.00	8,259.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,400.00	0.00	0.00	8,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,500.00	0.00	0.00	8,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,600.00	0.00	0.00	8,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,700.00	0.00	0.00	8,659.10	-52.08	459.57	462.51	0.00	0.00	0.00

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Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-3J4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Site:	NBU 1022-3J PAD	**North Reference:**	True
Well:	NBU 1022-3J4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
8,870.90	0.00	0.00	8,830.00	-52.08	459.57	462.51	0.00	0.00	0.00
SEGO - SEGO_NBU 1022-3J4CS									
8,900.00	0.00	0.00	8,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,000.00	0.00	0.00	8,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,037.90	0.00	0.00	8,997.00	-52.08	459.57	462.51	0.00	0.00	0.00
CASTLEGATE									
9,100.00	0.00	0.00	9,059.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,200.00	0.00	0.00	9,159.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,300.00	0.00	0.00	9,259.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,400.00	0.00	0.00	9,359.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,474.90	0.00	0.00	9,434.00	-52.08	459.57	462.51	0.00	0.00	0.00
BLACKHAWK									
9,500.00	0.00	0.00	9,459.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,600.00	0.00	0.00	9,559.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,700.00	0.00	0.00	9,659.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,800.00	0.00	0.00	9,759.10	-52.08	459.57	462.51	0.00	0.00	0.00
9,900.00	0.00	0.00	9,859.10	-52.08	459.57	462.51	0.00	0.00	0.00
10,000.00	0.00	0.00	9,959.10	-52.08	459.57	462.51	0.00	0.00	0.00
10,074.90	0.00	0.00	10,034.00	-52.08	459.57	462.51	0.00	0.00	0.00
PBHL_NBU 1022-3J4CS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 1022-3J4C - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,830.00	-52.08	459.57	14,520,721.31	2,082,372.05	39.974646	-109.422535
PBHL_NBU 1022-3J4CS - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,034.00	-52.08	459.57	14,520,721.31	2,082,372.05	39.974646	-109.422535

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,504.78	2,471.00	8 5/8"	8.625	11.000

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-3J4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5218 & KB 4 @ 5222.00ft (ASSUMED)
Site:	NBU 1022-3J PAD	**North Reference:**	True
Well:	NBU 1022-3J4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,362.79	1,350.00	GREEN RIVER			
1,536.99	1,521.00	BIRDSNEST			
2,046.35	2,021.00	MAHOGANY			
4,412.90	4,372.00	WASATCH			
6,754.90	6,714.00	MESAVERDE			
8,870.90	8,830.00	SEGO			
9,037.90	8,997.00	CASTLEGATE			
9,474.90	9,434.00	BLACKHAWK			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
850.00	846.63	-5.93	52.30	Start 1832.84 hold at 850.00 MD
2,682.84	2,645.79	-45.31	399.80	Start Drop -1.75
3,311.41	3,270.51	-52.08	459.57	Start 6763.49 hold at 3311.41 MD
10,074.90	10,034.00	-52.08	459.57	TD at 10074.90

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3J PAD

API #	**NBU 1022-3I4BS**			
	Surface:	1496 FSL / 2294 FEL	NWSE	Lot
	BHL:	1901 FSL / 494 FEL	NESE	Lot
API #	**NBU 1022-3I4CS**			
	Surface:	1486 FSL / 2294 FEL	NWSE	Lot
	BHL:	1571 FSL / 494 FEL	NESE	Lot
API #	**NBU 1022-3J4BS**			
	Surface:	1505 FSL / 2293 FEL	NWSE	Lot
	BHL:	1740 FSL / 1820 FEL	NWSE	Lot
API #4304750438	**NBU 1022-3J4CS**			
	Surface:	1476 FSL / 2294 FEL	NWSE	Lot
	BHL:	1423 FSL / 1835 FEL	NWSE	Lot
API #	**NBU 1022-3O1BS**			
	Surface:	1456 FSL / 2295 FEL	NWSE	Lot
	BHL:	1077 FSL / 1819 FEL	SWSE	Lot
API #	**NBU 1022-3P1BS**			
	Surface:	1466 FSL / 2295 FEL	NWSE	Lot
	BHL:	1240 FSL / 494 FEL	SESE	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on December 6, 2011. Present were:

- David Gordon, Tyler Cox - BLM;
- Jacob Dunham - 609 Consulting;
- John Slaugh, Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Gina Becker, Charles Chase, Doyle Holmes, Casey McGee, Grizz Oleen, Sheila Wopsock - Kerr-McGee

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All

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disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

There are no new proposed access roads associated with this pad. Please refer to Topo B.

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C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 164, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on February 10, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is ±5,400' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±415' (0.08 miles) – Section 3 T10S R22E (NW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 8" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2- Pad and Pipeline Detail.

±145' (0.03 miles) – Section 3 T10S R22E (NW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 8" buried gas gathering pipeline from the edge of the pad to tie-in to the proposed 10" buried gas gathering pipeline at the NBU 1022-3O intersection. Please refer to Topo D2 - Pad and Pipeline Detail and Exhibit A, Line 5.

±610' (0.12 miles) – Section 3 T10S R22E (NE/4 SW/4) – On-lease UTU-01191, BLM surface, New 10" buried gas gathering pipeline from the NBU 1022-3O intersection to tie-in to the proposed 16" buried gas gathering pipeline at the NBU 1022-3K pad. This pipeline will be used concurrently with the NBU 1022-3O Pad. Please refer to Exhibit A, Line 4.

±2, 055' (0.39 miles) – Section 3 T10S R22E (N/2 SW/4) – On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3K to the NBU 1022-3M intersection. This pipeline will be used concurrently with the NBU 1022-3O and NBU 1022-3K pads. Please refer to Exhibit A, Line 3.

±1,640' (0.31 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3M intersection with a short westerly bend into 10S, 22E, Section 4, then northeasterly to the NBU 1022-3L intersection in 10S, 22E, Section 3. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K and NBU 1022-3M pads. Please refer to Exhibit A, Line 2.

±535' (0.1 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3L intersection to tie-in to the approved 16" gas pipeline located in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K, NBU 1022-3M and NBU 1022-3L pads. Please refer to Exhibit A, Line 1.

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LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is ±5,400' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±415' (0.08 miles) – Section 3 T10S R22E (NW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2- Pad and Pipeline Detail.

±145' (0.03 miles) – Section 3 T10S R22E (NW/4 SE/4) – On-lease UTU-01191A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to tie-in to the proposed 6" buried liquid gathering pipeline at the NBU 1022-3O intersection. Please refer to Topo D2 - Pad and Pipeline Detail and Exhibit B, Line 5.

±610' (0.12 miles) – Section 3 T10S R22E (NE/4 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3O intersection to tie-in to the proposed 6" buried liquid gathering pipeline at the NBU 1022-3K pad. This pipeline will be used concurrently with the NBU 1022-3O Pad. Please refer to Exhibit B, Line 4.

±2,055' (0.39 miles) – Section 3 T10S R22E (N/2 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3K to the NBU 1022-3M intersection. This pipeline will be used concurrently with the NBU 1022-3O and NBU 1022-3K pads. Please refer to Exhibit B, Line 3.

±1,640' (0.31 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3M intersection with a short westerly bend into 10S, 22E, Section 4, then northeasterly to the NBU 1022-3L intersection in 10S, 22E, Section 3. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K and NBU 1022-3M pads. Please refer to Exhibit B, Line 2.

±535' (0.1 miles) – Section 3 T10S R22E (NW/4 SW/4) – On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3L intersection to tie-in to the approved liquid pipeline located in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3K, NBU 1022-3M and NBU 1022-3L pads. Please refer to Exhibit B, Line 1.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in

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diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

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If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom o pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6” aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

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G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a

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manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E

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NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

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Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a “picker box” in order to seed “fluffy” seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain “cheat grass free seed”.

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix	**Pure Live Seed lbs/acre**
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass (Arriba)	1
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee	0.5
Total	9.75

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Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as “Sustain” (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

Onsite Specifics:

- None
- Facilities: Will be painted Shadow Grey
- Top Soil: Need to save 4" topsoil and will be move and put around the corner
- Need to obtain a storm water permit
- BMP on the pit use (waddles, hay bails or silt fence)

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

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Resource Reports:

A Class I literature review was completed on February 1, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-404.

A paleontological reconnaissance survey was completed on February 3, 2012 by Intermountain Paleo Consultants. For additional details please refer to report IPC 11-202PRE.

Biological field survey was completed on June 15, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-689.

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	0.12	3.92
CO	2.2	0.11	2.31
VOC	0.1	4.9	5
SO_2	0.005	0.0043	0.0093
PM_{10}	1.7	0.11	1.81
$PM_{2.5}$	0.4	0.025	0.425
Benzene	2.2E-03	0.044	0.046
Toluene	1.6E-03	0.103	0.105
Ethylbenzene	3.4E-04	0.005	0.005
Xylene	1.1E-03	0.076	0.077
n-Hexane	1.7E-04	0.145	0.145
Formaldehyde	1.3E-02	8.64E-05	1.31E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	23.52	16,547	0.14%
VOC	30	127,495	0.02%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html Uintah Basin Data

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M. Lessee's or Operators' Representative & Certification:

Gina T. Becker
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6086

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T. Becker

February 15, 2012
Date

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1022-3J4BS	39°58'29.411" 39.974836°	109°25'29.474" 109.424854°	39°58'29.535" 39.974871°	109°25'27.018" 109.424172°	1505' FSL 2293' FEL	39°58'31.734" 39.975482°	109°25'23.403" 109.423167°	39°58'31.858" 39.975516°	109°25'20.947" 109.422485°	1740' FSL 1820' FEL
NBU 1022-3I4BS	39°58'29.312" 39.974809°	109°25'29.478" 109.424855°	39°58'29.436" 39.974843°	109°25'27.021" 109.424173°	1496' FSL 2294' FEL	39°58'33.341" 39.975928°	109°25'06.381" 109.418439°	39°58'33.465" 39.975963°	109°25'03.925" 109.417757°	1901' FSL 494' FEL
NBU 1022-3I4CS	39°58'29.213" 39.974781°	109°25'29.482" 109.424856°	39°58'29.337" 39.974816°	109°25'27.025" 109.424174°	1486' FSL 2294' FEL	39°58'30.081" 39.975022°	109°25'06.368" 109.418436°	39°58'30.205" 39.975057°	109°25'03.913" 109.417754°	1571' FSL 494' FEL
NBU 1022-3J4CS	39°58'29.115" 39.974754°	109°25'29.485" 109.424857°	39°58'29.239" 39.974789°	109°25'27.029" 109.424175°	1476' FSL 2294' FEL	39°58'28.601" 39.974612°	109°25'23.584" 109.423218°	39°58'28.726" 39.974646°	109°25'21.127" 109.422535°	1423' FSL 1835' FEL
NBU 1022-3P1BS	39°58'29.016" 39.974727°	109°25'29.489" 109.424858°	39°58'29.140" 39.974761°	109°25'27.032" 109.424176°	1466' FSL 2295' FEL	39°58'26.811" 39.974114°	109°25'06.356" 109.418432°	39°58'26.935" 39.974148°	109°25'03.901" 109.417750°	1240' FSL 494' FEL
NBU 1022-3O1BS	39°58'28.917" 39.974699°	109°25'29.492" 109.424859°	39°58'29.041" 39.974734°	109°25'27.036" 109.424177°	1456' FSL 2295' FEL	39°58'25.183" 39.973662°	109°25'23.365" 109.423157°	39°58'25.307" 39.973696°	109°25'20.909" 109.422475°	1077' FSL 1819' FEL
NBU 164	39°58'29.108" 39.974752°	109°25'29.164" 109.424768°	39°58'29.232" 39.974787°	109°25'26.708" 109.424086°	1475' FSL 2269' FEL					

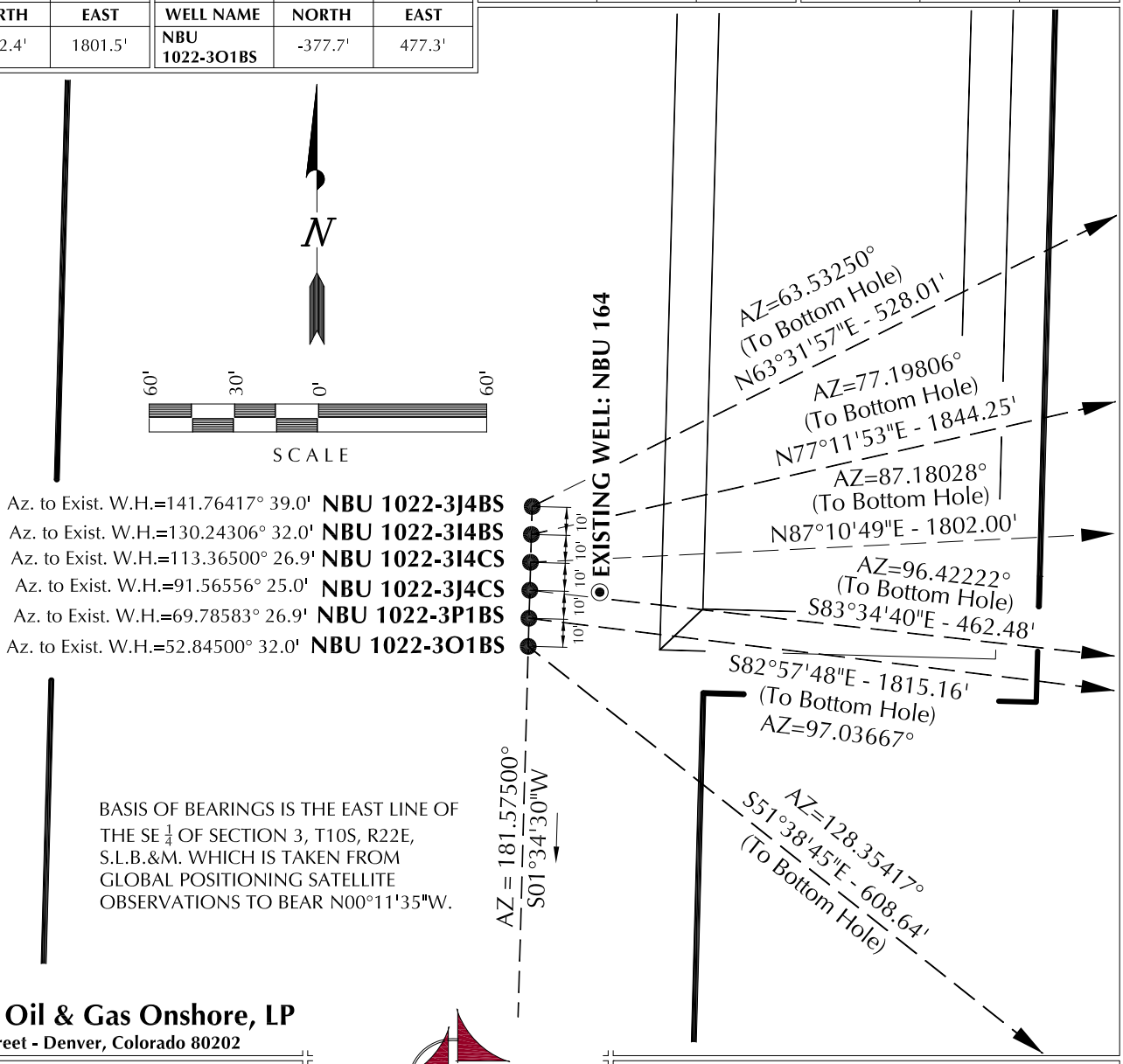
RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST
NBU 1022-3J4BS	235.3'	472.7'
NBU 1022-3P1BS	-222.4'	1801.5'

WELL NAME	NORTH	EAST
NBU 1022-3I4BS	408.7'	1798.4'
NBU 1022-3O1BS	-377.7'	477.3'

WELL NAME	NORTH	EAST
NBU 1022-3I4CS	88.6'	1799.8'

WELL NAME	NORTH	EAST
NBU 1022-3J4CS	-51.7	459.6'



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WELL PAD - NBU 1022-3J

WELL PAD INTERFERENCE PLAT

WELLS - NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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Fax 307-674-0182

TIMBERLINE (435) 789-1365
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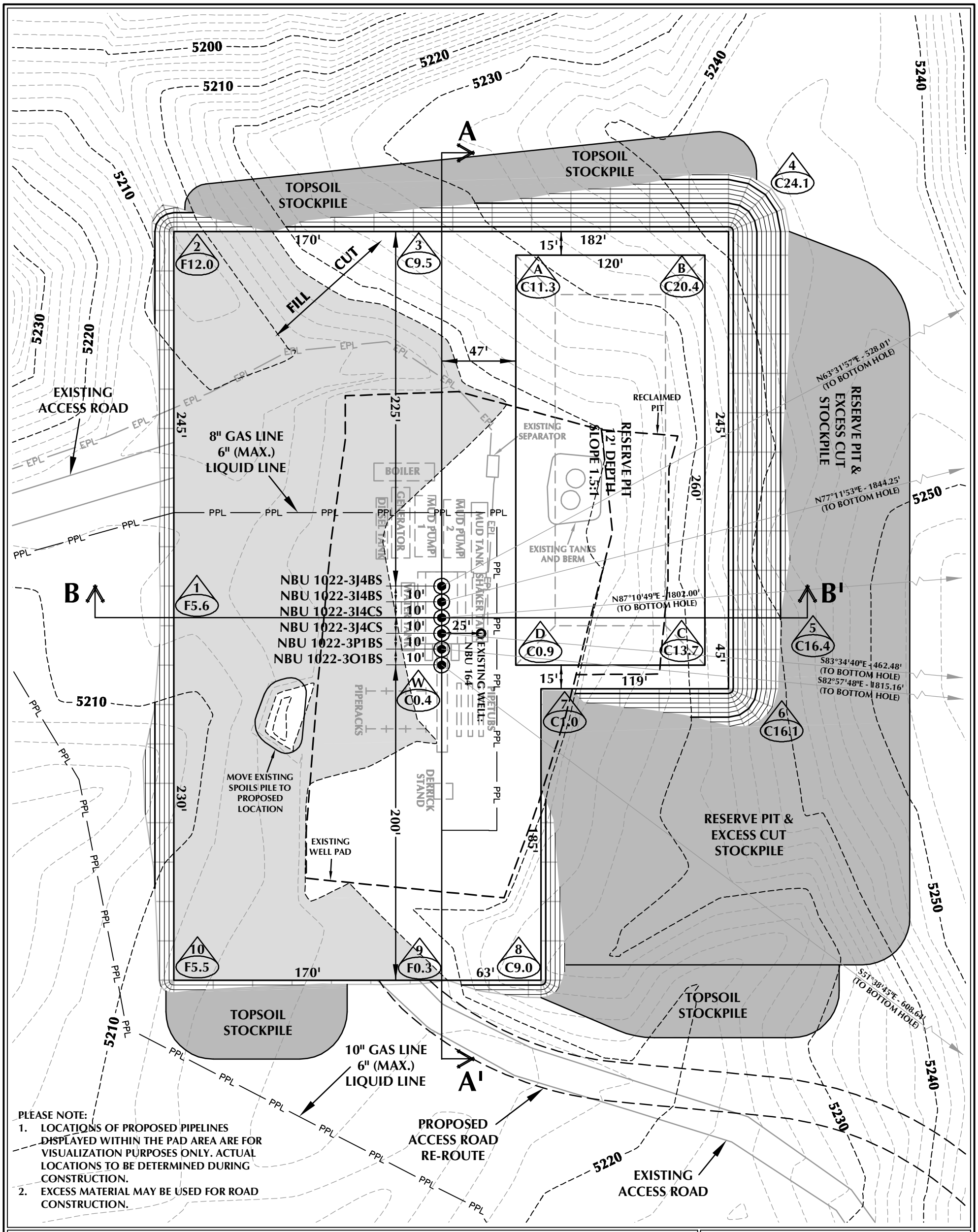
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 11-9-11	SURVEYED BY: J.W.	SHEET NO: 7
DATE DRAWN: 11-14-11	DRAWN BY: J.G.C.	7 OF 18
SCALE: 1" = 60'	Date Last Revised:	



PLEASE NOTE:
1. LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. EXCESS MATERIAL MAY BE USED FOR ROAD CONSTRUCTION.

WELL PAD - NBU 1022-3J DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5218.4'
FINISHED GRADE ELEVATION = 5218.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.99 ACRES
TOTAL DISTURBANCE AREA = 5.86 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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1099 18th Street - Denver, Colorado 80202

WELL PAD QUANTITIES
TOTAL CUT FOR WELL PAD = 20,107 C.Y.
TOTAL FILL FOR WELL PAD = 12,220 C.Y.
TOPSOIL @ 6" DEPTH = 2,317 C.Y.
EXCESS MATERIAL = 7,887 C.Y.

RESERVE PIT QUANTITIES
TOTAL CUT FOR RESERVE PIT
+/- 11,020 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 42,290 BARRELS

WELL PAD - NBU 1022-3J

WELL PAD - LOCATION LAYOUT
NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS & NBU 1022-3O1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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WELL PAD LEGEND
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

SCALE: 1"=60'	DATE: 11/18/11	SHEET NO:
REVISED: GRB 1/11/12		8 8 OF 18

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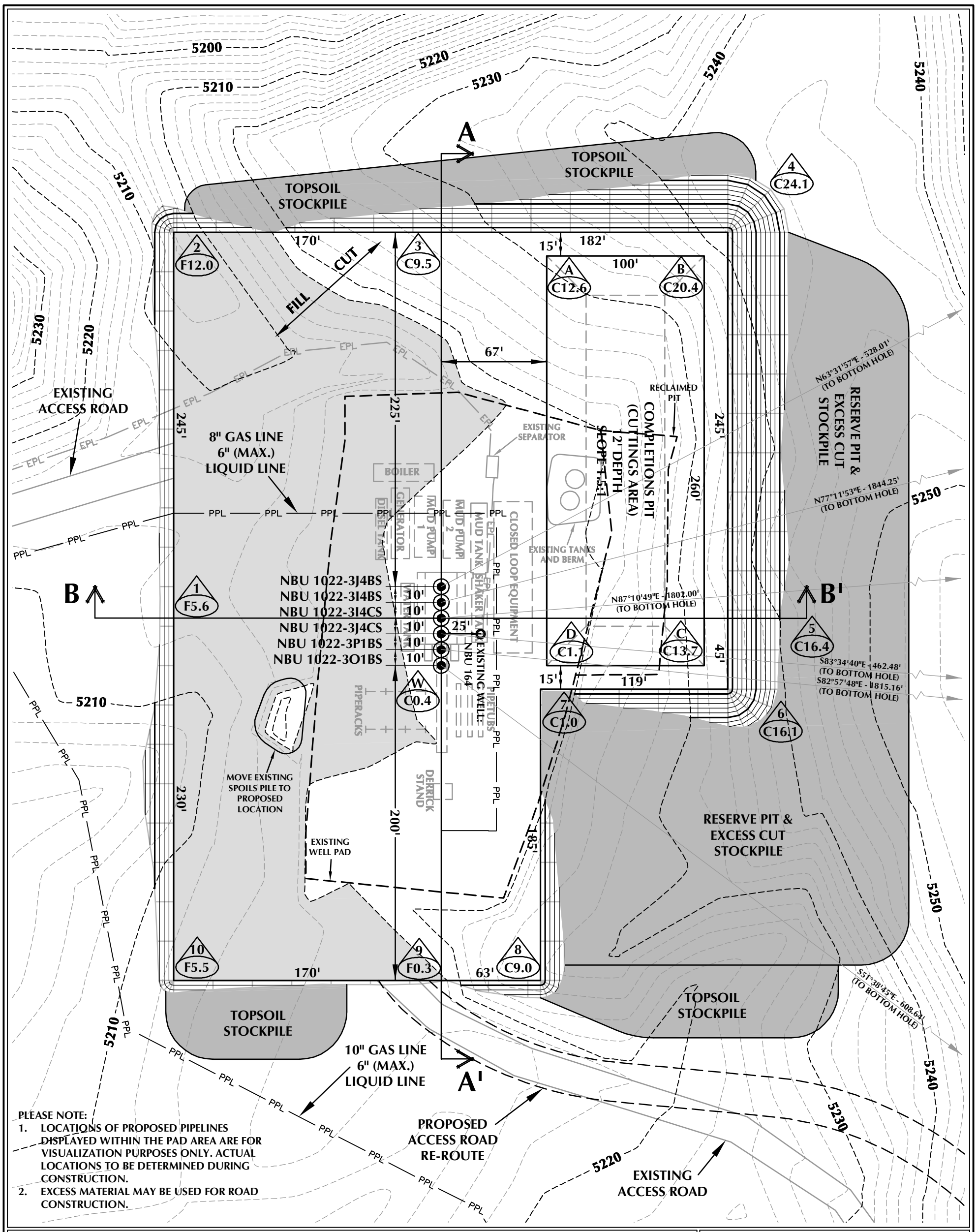
RECEIVED: May. 21, 2012



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2. EXCESS MATERIAL MAY BE USED FOR ROAD CONSTRUCTION.

WELL PAD - NBU 1022-3J (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5218.4'
FINISHED GRADE ELEVATION = 5218.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.99 ACRES
TOTAL DISTURBANCE AREA = 5.86 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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WELL PAD QUANTITIES
TOTAL CUT FOR WELL PAD = 20,107 C.Y.
TOTAL FILL FOR WELL PAD = 12,220 C.Y.
TOPSOIL @ 6" DEPTH = 2,317 C.Y.
EXCESS MATERIAL = 7,887 C.Y.

COMPLETIONS PIT QUANTITIES
TOTAL CUT FOR COMPLETIONS PIT +/- 8,870 C.Y.
COMPLETIONS PIT CAPACITY (2' OF FREEBOARD) +/- 33,770 BARRELS

WELL PAD - NBU 1022-3J

WELL PAD - LOCATION LAYOUT
NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS & NBU 1022-3O1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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209 NORTH 300 WEST - VERNAL, UTAH 84078
(435) 789-1365

WELL PAD LEGEND
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

SCALE: 1"=60' | DATE: 1/11/12 | SHEET NO: 8B 8B OF 18
REVISED:

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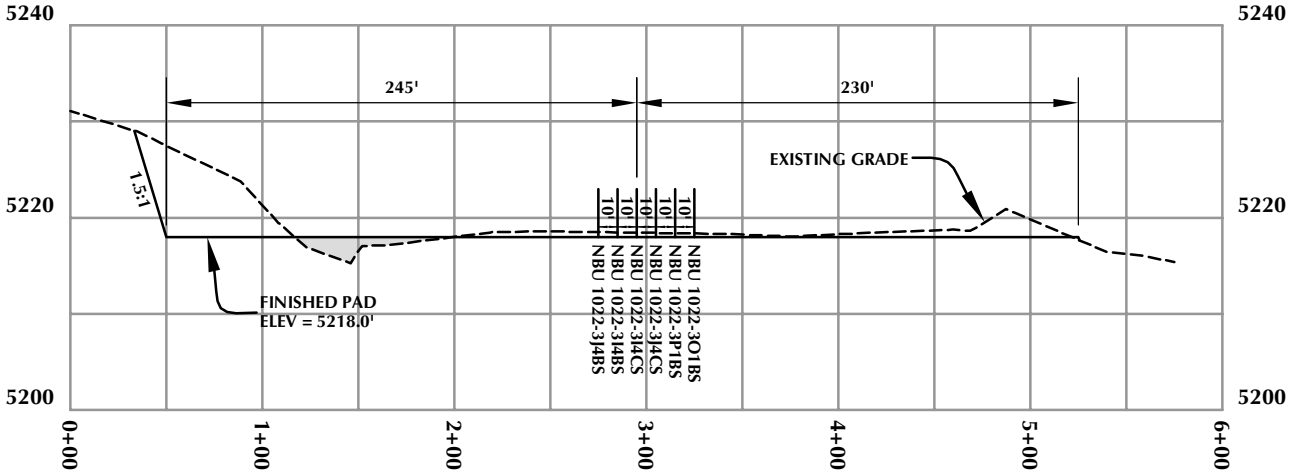
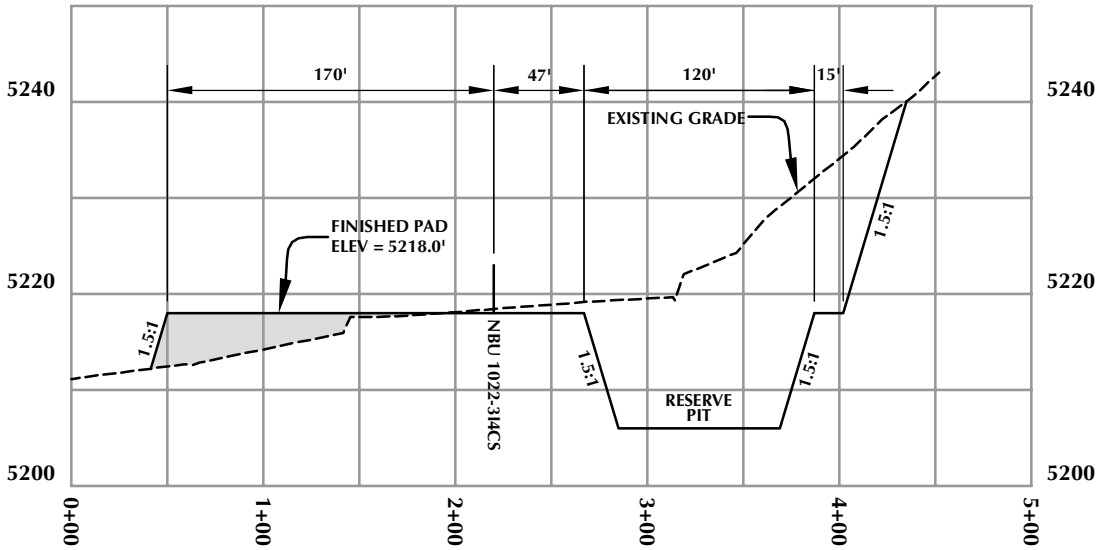


CROSS SECTION A-A'



CROSS SECTION B-B'

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WELL PAD - NBU 1022-3J

WELL PAD - CROSS SECTIONS
NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS & NBU 1022-3O1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

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209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 11/18/11 | SHEET NO: 9 9 OF 18
REVISED:

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PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.

5220 5230 5240 5240 5210 5230 5220 5250 5210 5250 5240 5230 5220 5210

DISTURBANCE BOUNDARY

CUT FILL

PROPOSED WELL PAD

EXISTING WELL PAD

EXISTING ACCESS ROAD

8" GAS LINE
6" (MAX.) LIQUID LINE

RESERVE PIT

PPL

NBU 1022-3J4BS 10'
NBU 1022-3I4BS 10'
NBU 1022-3I4CS 10'
NBU 1022-3J4CS 10'
NBU 1022-3P1BS 10'
NBU 1022-3O1BS

EXISTING WELL: NBU 164

90'

TANKS (TYPICAL)

METAL CONTAINMENT

30' 30'

SEPARATOR/ METER HOUSE

15'

30' 30'

75'

10" GAS LINE
6" (MAX.) LIQUID LINE

PROPOSED ACCESS ROAD RE-ROUTE

EXISTING ACCESS ROAD

WELL PAD - NBU 1022-3J DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 5.86 ACRES (INCLUDING EXISTING)
RECLAMATION AREA = 4.69 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 1.17 ACRES

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

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WELL PAD - NBU 1022-3J

WELL PAD - RECLAMATION LAYOUT
NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS & NBU 1022-3O1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Fax 307-674-0182

TIMBERLINE ENGINEERING & LAND SURVEYING, INC. (435) 789-1365
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' DATE: 1/11/12 SHEET NO: 10 10 OF 18
REVISED:

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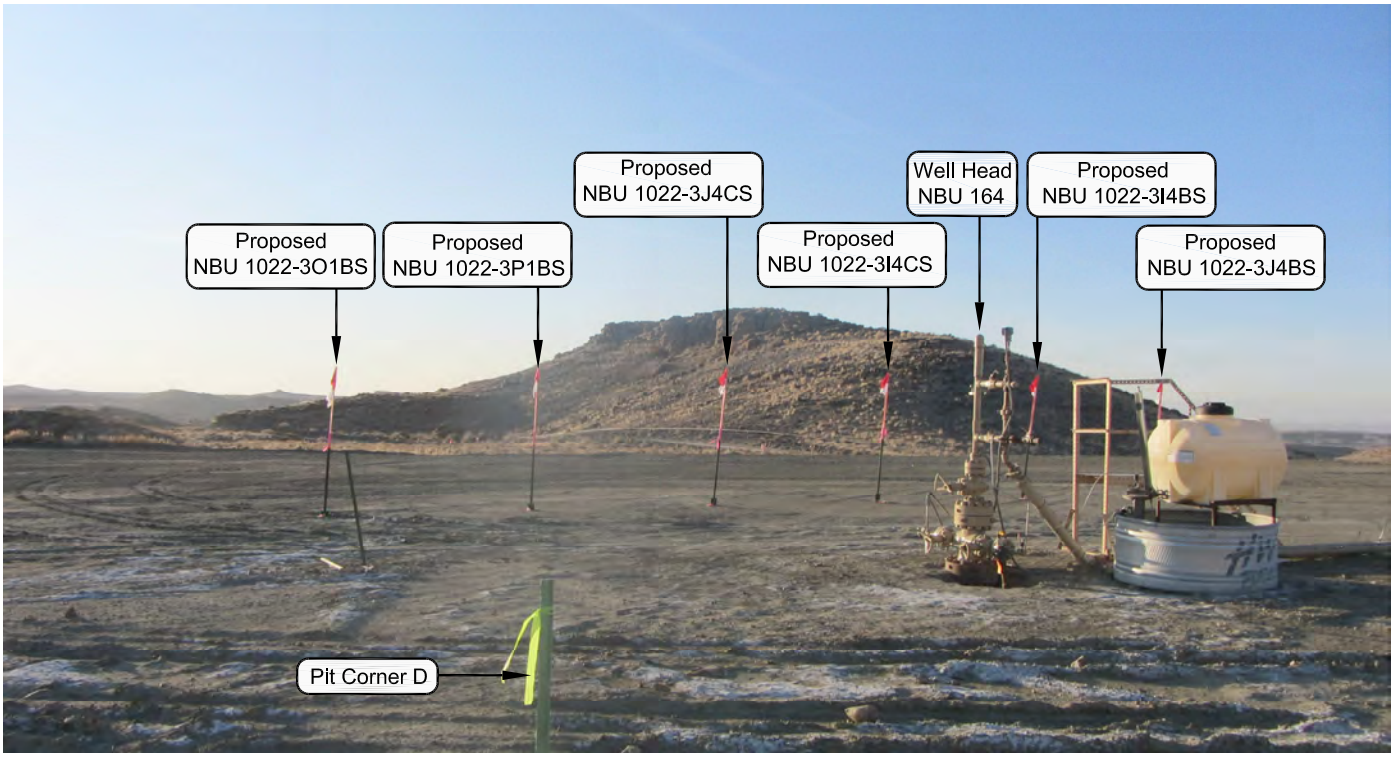

PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE **CAMERA ANGLE: NORTHWESTERLY**

PHOTO VIEW: FROM EXISTING ACCESS ROAD **CAMERA ANGLE: NORTHEASTERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-3J

LOCATION PHOTOS
NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS & NBU 1022-3O1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.

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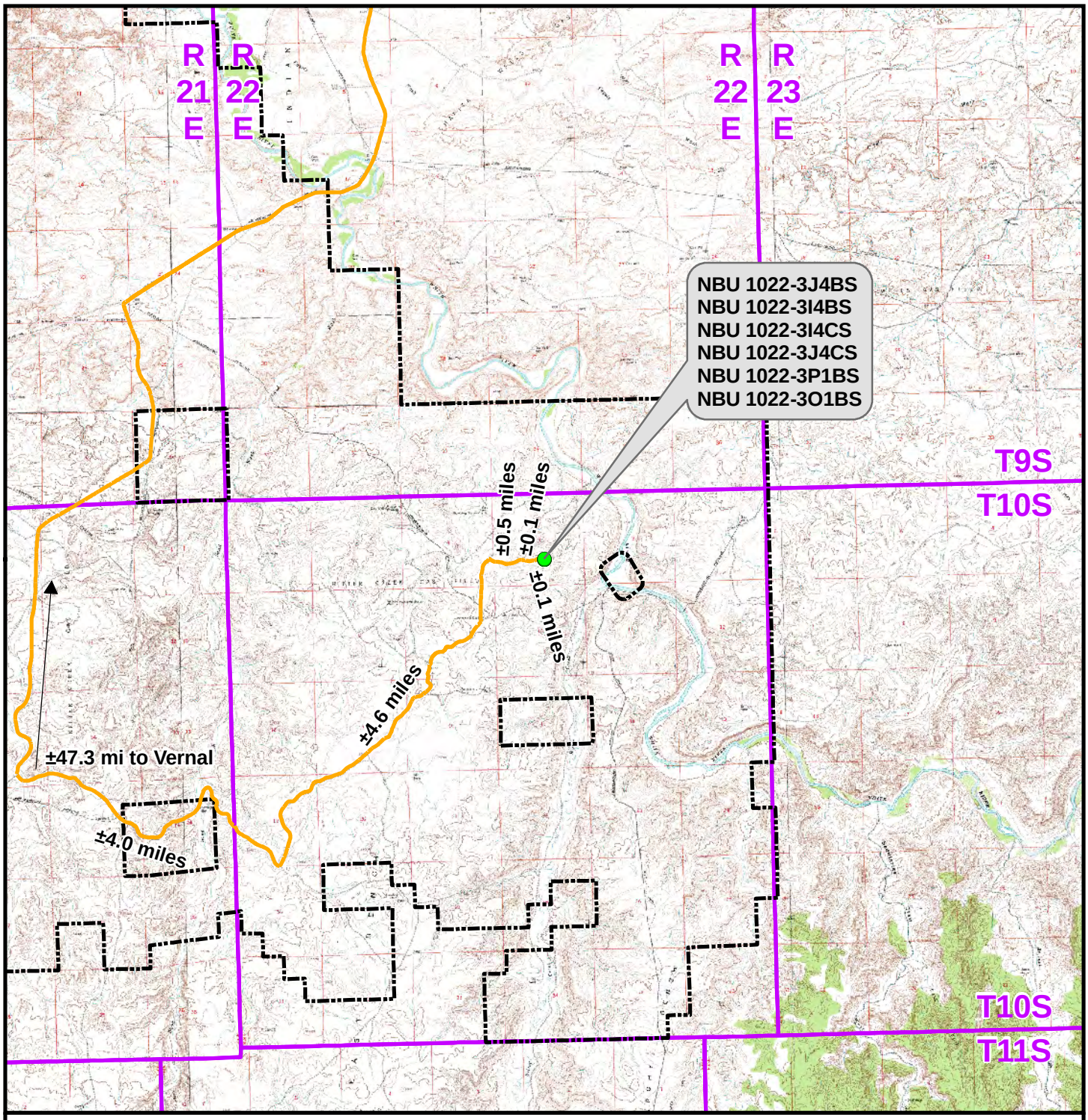
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 11-9-11	PHOTOS TAKEN BY: J.W.	SHEET NO: 11
DATE DRAWN: 11-14-11	DRAWN BY: J.G.C.	11 OF 18
Date Last Revised:		

RECEIVED: May. 21, 2012



Legend

Distance From Well Pad - NBU 1022-3J To Unit Boundary: ±3,678ft

Proposed Well Location

Natural Buttes Unit Boundary

Access Route - Proposed

WELL PAD - NBU 1022-3J

TOPO A

NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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Sheridan, Wyoming 82801
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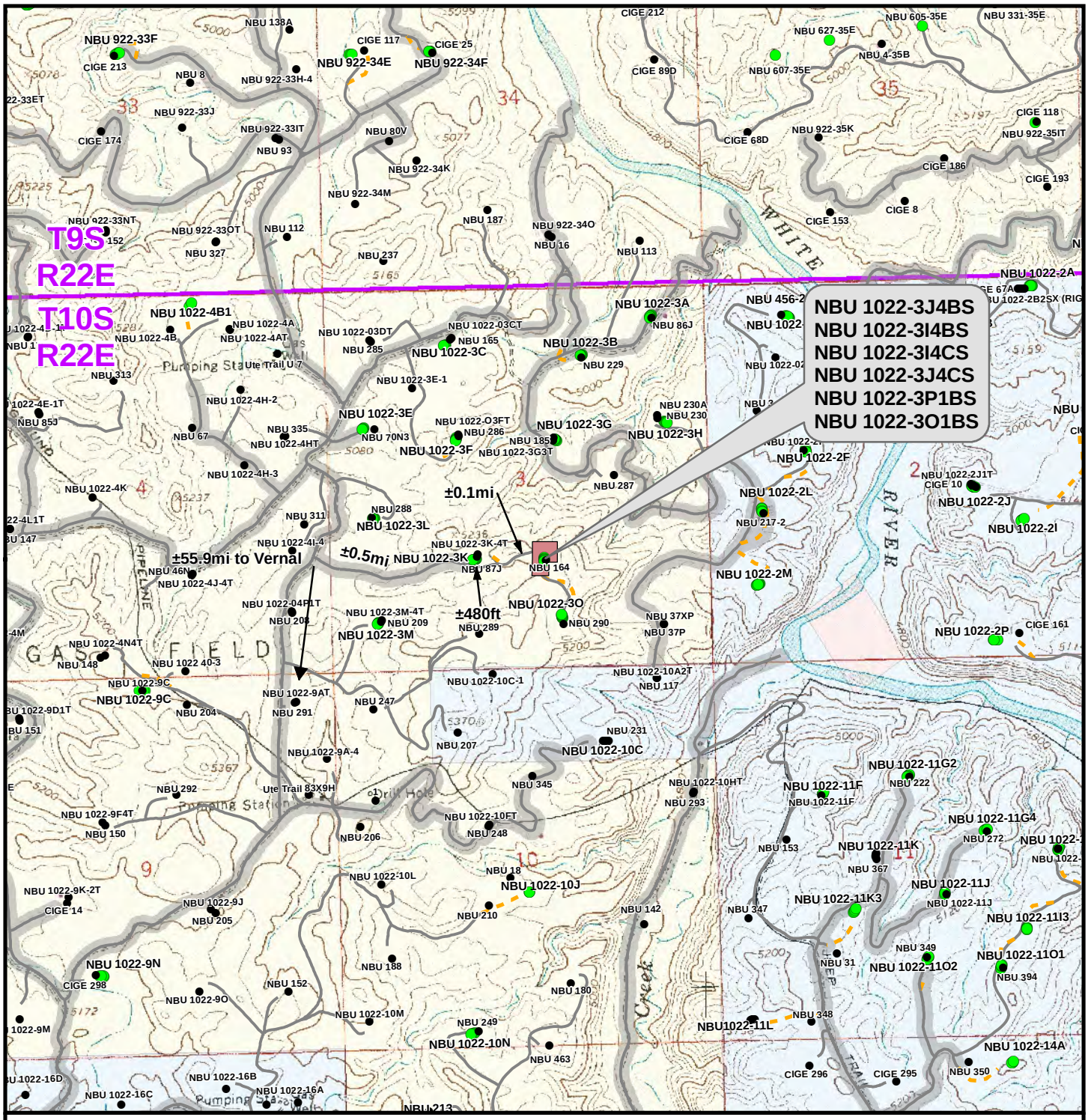
N

SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 12
DRAWN: TL	DATE: 18 Nov 2011	12 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Legend

Total Proposed Road Length: ±0ft

Well - Proposed	Well Pad	Road - Proposed	County Road	Bureau of Land Management	State
Well - Existing		Road - Existing		Indian Reservation	Private

WELL PAD - NBU 1022-3J

TOPO B

NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

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Denver, Colorado 80202

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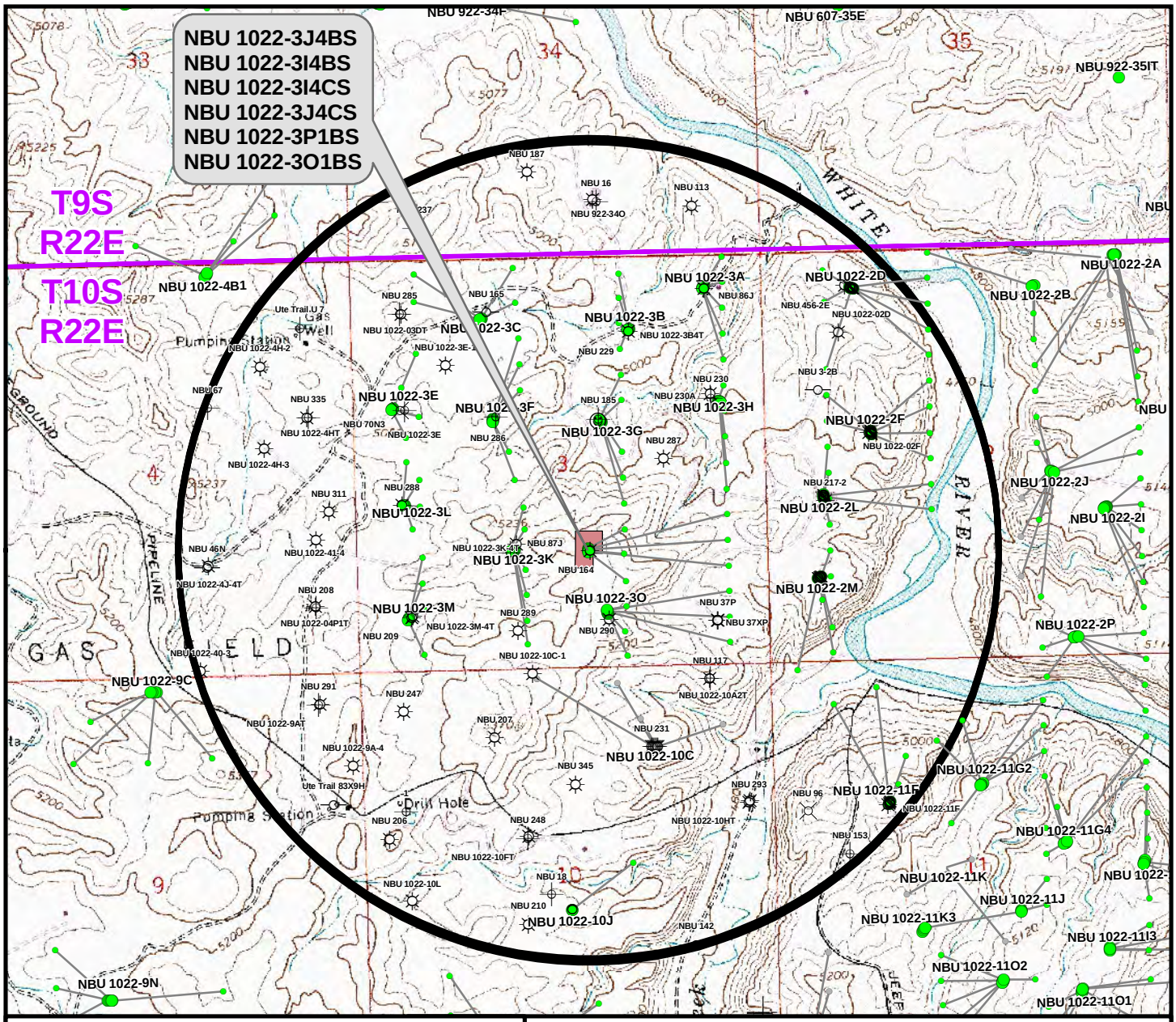
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 13
DRAWN: TL	DATE: 18 Nov 2011	13 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-3J4BS	NBU 164	523ft
NBU 1022-3I4BS	NBU 287	1,090ft
NBU 1022-3I4CS	NBU 37XP	1,041ft
NBU 1022-3J4CS	NBU 164	437ft
NBU 1022-3P1BS	NBU 37XP	716ft
NBU 1022-3O1BS	NBU 290	547ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-3J

TOPO C

NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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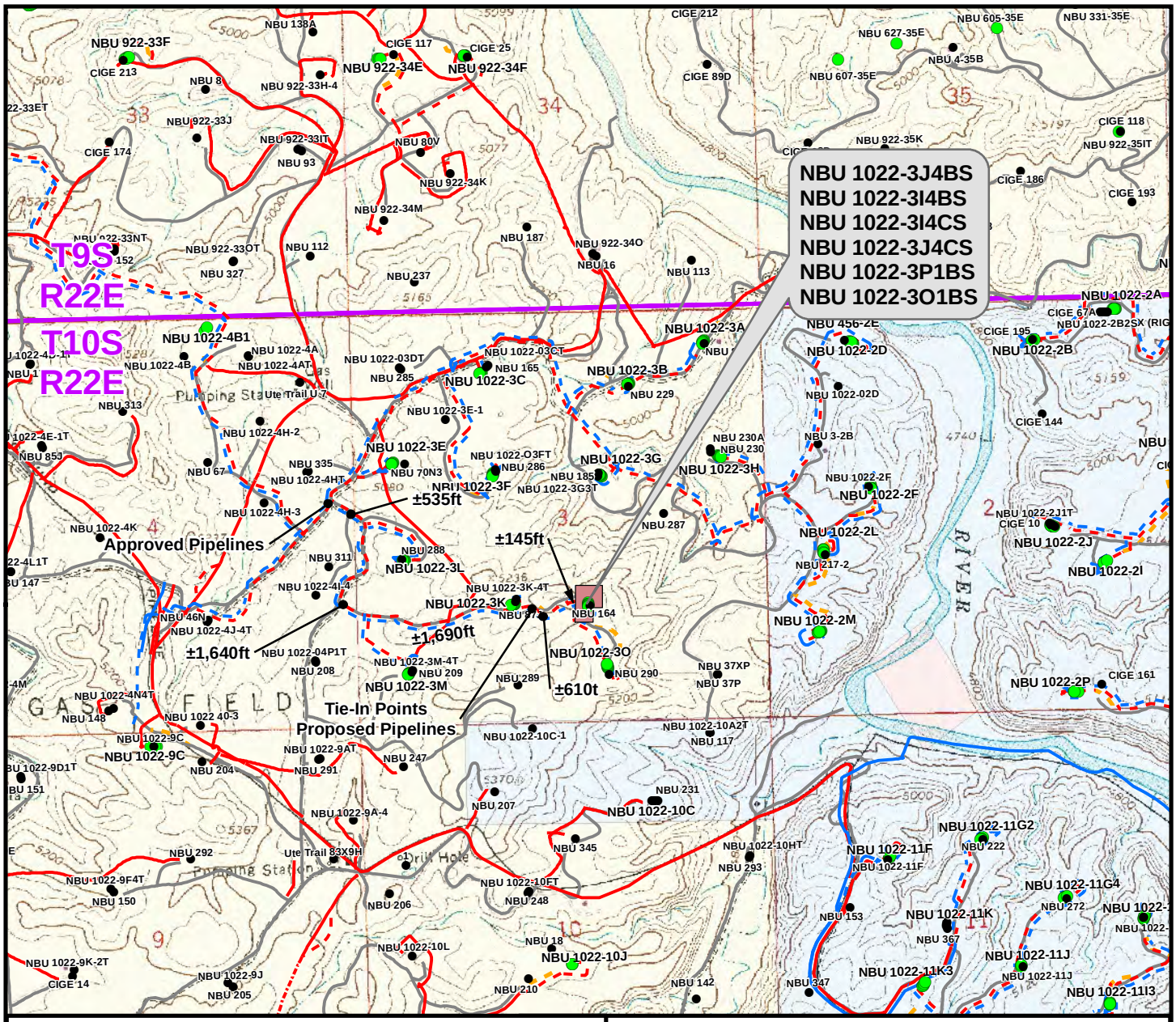
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 14
DRAWN: TL	DATE: 18 Nov 2011	14 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter House to Edge of Pad)	±415ft
Buried 6"(Max.) (Edge of Pad to 3O Intersection)	±145ft
Buried 6"(Max.) (3O Intersection to 3K Intersection)	±610ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,170ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±415ft
Buried 8" (Edge of Pad to 3O Intersection)	±145ft
Buried 10" (3O Intersection to 3K Intersection)	±610ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,170ft

Legend

Well - Proposed; Well - Existing; Well Pad; Gas Pipeline - Proposed; Gas Pipeline - To Be Upgraded; Gas Pipeline - Existing; Liquid Pipeline - Proposed; Liquid Pipeline - Existing; Road - Proposed; Road - Existing; Bureau of Land Management; Indian Reservation; State; Private

WELL PAD - NBU 1022-3J

TOPO D

NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

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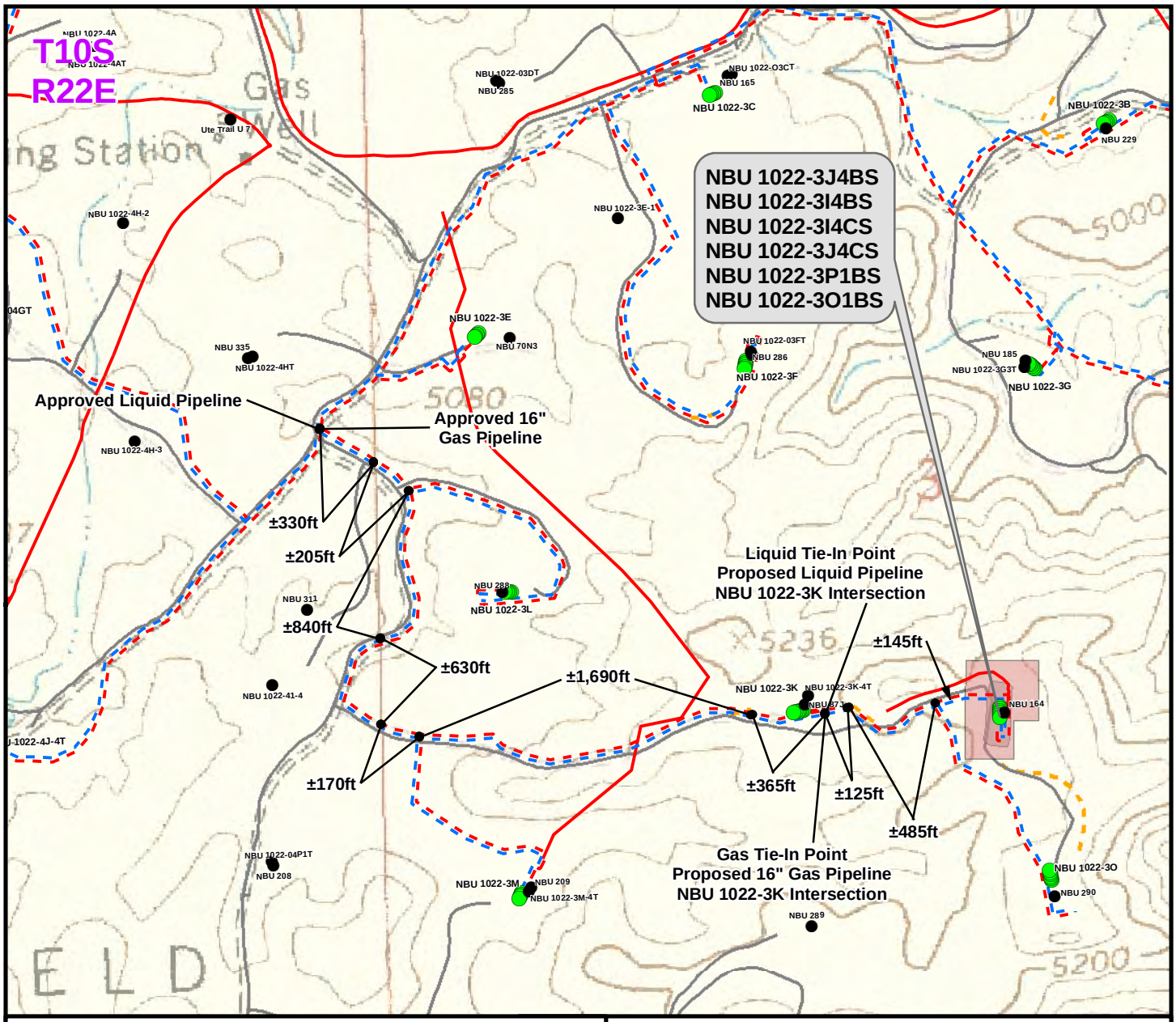
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 15
DRAWN: TL	DATE: 18 Nov 2011	15 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter House to Edge of Pad)	±415ft
Buried 6"(Max.) (Edge of Pad to 3O Intersection)	±145ft
Buried 6"(Max.) (3O Intersection to 3K Intersection)	±610ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,170ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±415ft
Buried 8" (Edge of Pad to 3O Intersection)	±145ft
Buried 10" (3O Intersection to 3K Intersection)	±610ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,170ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-3J

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-3J4BS, NBU 1022-3I4BS,
NBU 1022-3I4CS, NBU 1022-3J4CS,
NBU 1022-3P1BS & NBU 1022-3O1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

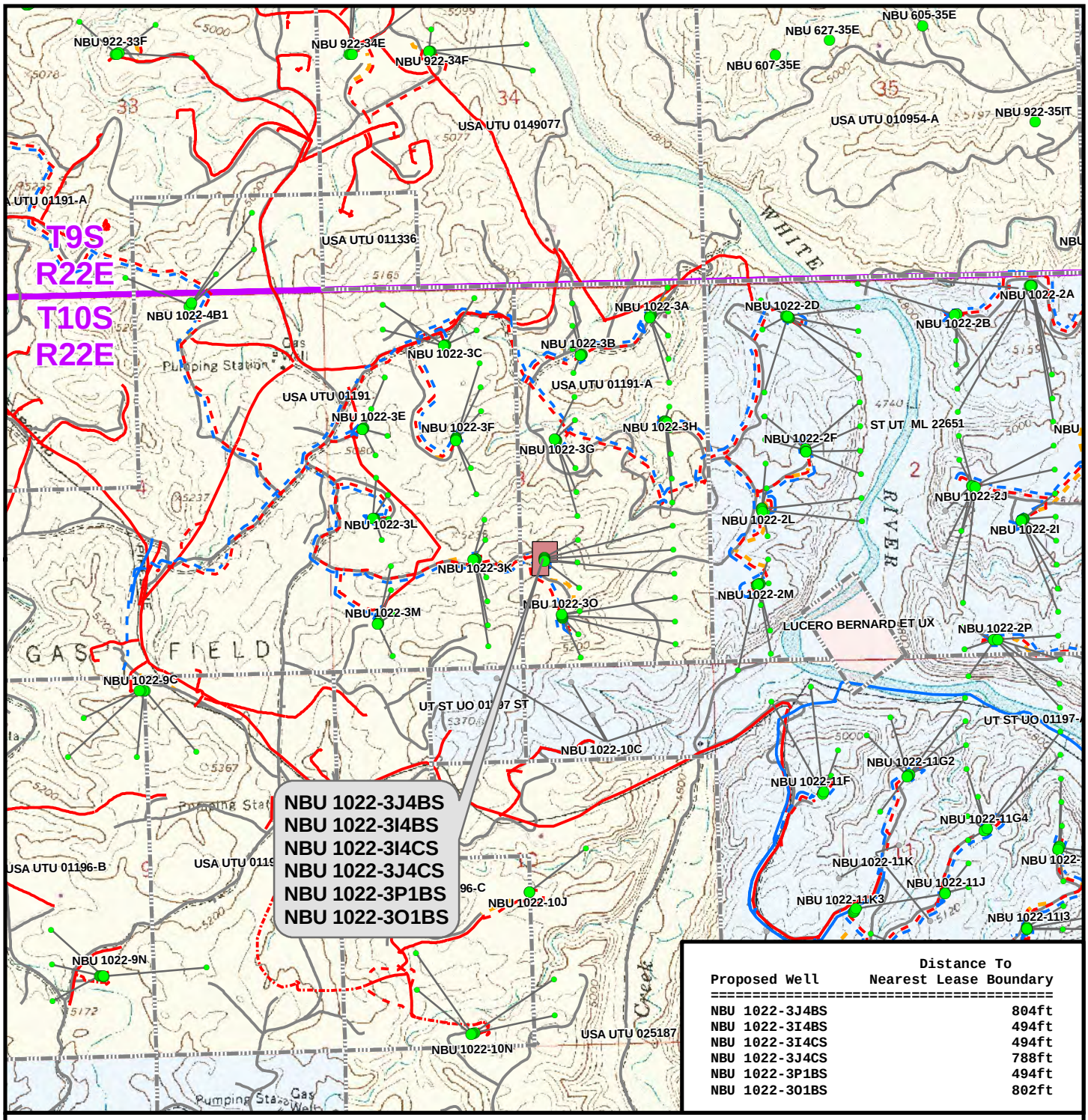
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 750ft	NAD83 USP Central	SHEET NO: 16
DRAWN: TL	DATE: 18 Nov 2011	16 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012



Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-3J4BS	804ft
NBU 1022-3I4BS	494ft
NBU 1022-3I4CS	494ft
NBU 1022-3J4CS	788ft
NBU 1022-3P1BS	494ft
NBU 1022-3O1BS	802ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-3J

TOPO E

NBU 1022-3J4BS, NBU 1022-3I4BS, NBU 1022-3I4CS, NBU 1022-3J4CS, NBU 1022-3P1BS & NBU 1022-3O1BS LOCATED IN SECTION 3, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 17
DRAWN: TL	DATE: 18 Nov 2011	17 OF 18
REVISED:	DATE:	

RECEIVED: May. 21, 2012

Kerr-McGee Oil & Gas Onshore LP
1099 18TH STREET STE. 1800
DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

February 14, 2012

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-3J4CS
T10S-R22E
Section 3: NWSE/NWSE
Surface: 1476' FSL, 2294' FEL
Bottom Hole: 1423' FSL, 1835' FEL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-3J4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson
Landman

RECEIVED: May. 21, 2012

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-03J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/18/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: June 07, 2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jenn Hawkins	720 929-6247	Staff Operations Specialist III

SIGNATURE	DATE
N/A	6/5/2012

RECEIVED: Jun. 05, 2012

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047504380000

API: 43047504380000
Well Name: NBU 1022-03J4CS
Location: 1476 FSL 2294 FEL QTR NWSE SEC 03 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 6/18/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Jenn Hawkins **Date:** 6/5/2012
Title: Staff Operations Specialist III **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Jun. 05, 2012

RECEIVED

FEB 27 2012

BLM VERNAL, UTAH

Form 3160-3
(August, 2007)

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU-01191A

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
UTU63047A

1a. Type of Work: [X] DRILL [ ] REENTER

1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [X] Multiple Zone

8. Lease Name and Well No.
NBU 1022-3J4CS

2. Name of Operator
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API Well No. 50438
43047~~49438~~

3a. Address
P.O. BOX 173779
DENVER, COLORADO 80202-3779

3b. Phone No. *(include area code)*
PHONE 720-929-6086
FAX 720-929-7086

10. Field and Pool, or Exploratory
NATURAL BUTTES

4. Location of well *(Report location clearly and In accordance with any State requirements.*)*
At surface NWSE 1476 FSL 2294 FEL LAT = 39.974754 LONG = -109.424857
At proposed prod. Zone NWSE 1423 FSL 1835 FEL LAT = 39.974612 LONG = -109.423218

11. Sec.,T.,R.,M.,or Blk.and Survey or Area
3 T 10S R 22E

14. Distance in miles and direction from the nearest town or post office*
Approximately 57 miles Southeast from Vernal, Utah

12. County or Parish
UINTAH

13. State
UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)
788

16. No. of acres in lease
1363.21

17. Spacing Unit dedicated to this well

RECEIVED
AUG 27 2012
DIV. OF OIL, GAS & MINING

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
437

19. Proposed Depth
10075 MD
10034 TVD

20. BLM/ BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF. RT, GR, etc.)
5218.3 GR

22. Approximate date work will start*
8/8/2012

23. Estimated duration
60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).
5. Operator certification.
6. Such other site specific information and/ or plans as may be required by the a authorized officer.

25. Signature [signature] Name *(Printed/ Typed)* GINA T BECKER Date February 16, 2012

Title REGULATORY ANALYST II

Approved By *(Signature)* [signature] Name *(Printed/ Typed)* Jerry Kenczka Date AUG 02 2012

Title Assistant Field Manager Lands & Mineral Resources Office VERNAL FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Kerr-McGee Oil & Gas Onshore, L.P. hereby certifies that it is authorized by the proper lease interest owners and responsible under the terms and conditions of the lease to conduct lease operations associated with this application.

UDOGM

NOTICE OF APPROVAL
CONDITIONS OF APPROVAL ATTACHED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore**	**Location:**	**NWSE, Sec. 3, T10S, R22E**
Well No:	**NBU 1022-3J4CS**	**Lease No:**	**UTU-01191A**
API No:	**43-047-~~40438~~ 50438**	**Agreement:**	**Natural Buttes**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

Site Specific COA's

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.

- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.

- The following would be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.

- All reclamation activities will comply with the Green River Reclamation Guidelines.

- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.

- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established.

- Noxious and invasive weeds will be controlled by the proponent throughout the area of project disturbance.

- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.

- A pesticide use proposal (PUP) will be obtained for the project, by the proponent if applicable.

- A permitted paleontologist is to be present to monitor construction at all well pads during all surface disturbing actives: examples include the following; building of the well pad, access road, and pipelines.

To maintain compliance with current cactus survey protocols, the following measures will be required

- If construction does not occur within 4 years of the original survey date, new 100% clearance surveys will be required.

- Prior to construction within 4 years of the original survey date, a spot check survey will be required during the year of construction. KMG and their respective 3rd party surveyor will refer to the current.

- *Sclerocactus* Spot Check Survey Methods, to determine site specific survey distances and intensity levels.

- Spot check reports will be reported to the BLM and the US Fish and Wildlife Service.

- Construction will not commence until written approval is received from the BLM

Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Uinta Basin hookless cactus is anticipated as a result of project activities.

- Construction or drilling is not allowed from January 1 – August 31 on the NBU 1022-3O pad to minimize impacts during golden eagle nesting.

- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified to conduct surveys for raptors. Depending upon the results of the surveys, permission to proceed may or may not be granted by the Authorized Officer.

- The best method to avoid entrainment is to pump from an off-channel location – one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.

- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
    a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;
    b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
    c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.

- Screen all pump intakes with 3/32 inch mesh material.

- Approach velocities for intake structures will follow the National Marine Fisheries Service's document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream intake that operate in stream reaches where larval fish may be present, the approach velocity will not exceed 0.33 feet per second (ft/s).

- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:
  Northeastern Region
  152 East 100 North, Vernal, UT 84078
  Phone: (435) 781-9453

- Kerr McGee can only use the following water source:
  Permit # 49-2307 JD Field Services Green River-Section 15, T2N, R22E

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Gamma ray Log shall be run from Total Depth to Surface.

Variances Granted:

Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40'from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.
- FIT Test. Variance granted due to well-known geology and the problems that can occur with the FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a

test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☑ SPUD REPORT Date of Spud: 4/30/2013	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40 FEET. RAN 14 INCH 36.7 LB SHEDULE 10 CONDUCTOR PIPE. CMT W/ 28 SX READY MIX. SPUD WELL LOCATION ON APRIL 30, 2013 AT 19:00 HRS. PROPOSED SURFACE DRILL DATE IS 5/14/2013.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
May 07, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Luke Urban	720 929-6501	Regulatory Specialist
SIGNATURE N/A		**DATE** 5/3/2013

RECEIVED: May. 03, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 7/1/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled to 2,539 ft. in June 2013.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 09, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		7/1/2013

RECEIVED: Jul. 01, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 8/5/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled to 8,883 ft. in July 2013.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
August 05, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		8/5/2013

RECEIVED: Aug. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 01191A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/4/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No activity for the month of August 2013. Well TD at 8,883 ft.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 04, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		9/4/2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/25/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
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	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 9/25/2013. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 02, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 10/2/2013

RECEIVED: Oct. 02, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-3J4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047504380000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1476 FSL 2294 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 03 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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✓ DRILLING REPORT Report Date: 10/4/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
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	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well was completed, finishing well completion report. Well TD at 8,883 ft.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 07, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Matthew P Wold	720 929-6993	Regulatory Analyst I
SIGNATURE N/A		**DATE** 10/4/2013

RECEIVED: Oct. 04, 2013

API Well Number: 43047504380000

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.: UTU01191A

1a. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name:

7. Unit or CA Agreement Name and No.: UTU63047A

2. Name of Operator: KERR-MCGEE OIL AND GAS ONSHORE LP
Contact: TEENA PAULO
E-Mail: Teena.Paulo@anadarko.com

8. Lease Name and Well No.: NBU 1022-3J4CS

3. Address: P.O. BOX 173779
DENVER, CO 82017

3a. Phone No. (include area code)
Ph: 720-929-6000

9. API Well No.: 43-047-50438

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface: NWSE 1476FSL 2294FEL 39.974754 N Lat, 109.424857 W Lon

At top prod interval reported below: NWSE 1431FSL 1830FEL

At total depth: NWSE 1407FSL 1827FEL

10. Field and Pool, or Exploratory: NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area: Sec 3 T10S R22E Mer SLB

12. County or Parish: UINTAH

13. State: UT

14. Date Spudded: 04/30/2013

15. Date T.D. Reached: 07/17/2013

16. Date Completed: ☐ D & A ☒ Ready to Prod. 09/25/2013

17. Elevations (DF, KB, RT, GL)*: 5244 KB

18. Total Depth: MD 8883 TVD 8844

19. Plug Back T.D.: MD 8827 TVD 8788

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/GR/CCL/TEMP

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
11.000	8.625 J-55	28.0	22	2512		900		0	
7.875	4.500 I-80	11.6	26	5033		1530		800	
7.875	4.500 P-110	11.6	5033	8872					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	8364							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	WASATCH	5621	6638	5621 TO 6638	0.360	68	OPEN
B)	MESAVERDE	6875	8738	6875 TO 8738	0.360	197	OPEN
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
5621 TO 8738	PUMP 12,469 BBL SLICKWATER AND 270,019 LBS 30/50 MESH SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
09/25/2013	10/03/2013	24	→	14.0	3111.0	0.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	1676	1984.0	→	14	3111	0		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #223733 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED: Oct. 21, 2013

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	1151
				BIRD'S NEST	1480
				MAHOGANY	2065
				WASATCH	4425
				MESAVERDE	6744

32. Additional remarks (include plugging procedure):
The first 210 ft. of the surface hole was drilled with a 12 ? in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX csg was run from surface to 5033 ft.; LTC csg was run from 5033 ft. to 8872 ft. Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #223733 Verified by the BLM Well Information System.
For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal

Name *(please print)* TEENA PAULO Title STAFF REGULATORY SPECIALIST

Signature (Electronic Submission) Date 10/21/2013

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

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RECEIVED: Oct. 21, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/17/2013	15:30 - 17:00	1.50	MIRU	01	B	P	66	SKID RIG 20' RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.
	17:00 - 17:30	0.50	DRLSUR	23		P	66	PRE SPUD JOB SAFETY MEETING WITH RIG CREW, NOV CREW, AND SCIENTIFIC CREW. REVEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS PRIOR TO SPUD.
	17:30 - 18:00	0.50	DRLSUR	06	A	P	66	PICK UP 12 1/4" BIT & 8" MUD MOTOR. TRIP IN HOLE.
	18:00 - 19:30	1.50	DRLSUR	02	B	P	66	DRILL 12.25" SURFACE HOLE F/ 44'- T/ 210' BIT ROP= 166' @ 110.6 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 / TOTAL RPM~138 PUMPING 491 GPM @ 120 SPM STAND PIPE PRESSURE ON/OFF BOTTOM = 890/660 TORQUE ON/OFF BOTTOM = 2,900/700 UP/DN/ROT = 22/20/20 NOV ON LINE MUD WT = 8.4
	19:30 - 20:30	1.00	DRLSUR	06	A	P	232	TRIP OUT OF HOLE. LAY DOWN 12 1/4" BIT
	20:30 - 21:00	0.50	DRLSUR	06	A	P	232	PICK UP 11" BIT & DIRECTIONAL ASSEMBLY, SCRIBE. TRIP IN HOLE
	21:00 - 0:00	3.00	DRLSUR	02	B	P	232	DRILL 11". SURFACE HOLE, F/ 210' - T/ 650", 440' @ 146 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 890/660 TORQUE ON OFF = 2,900/700 UP/DOWN/ ROT 56/54/55 K. DRAG 2 K. NOV ON LINE MUD WT 8.4 SLID 10' = 1.79% 0.85' ABOVE & 0.16' LEFT OF THE LINE NO HOLE ISSUES.
6/18/2013	0:00 - 6:00	6.00	DRLSUR	02	B	P	672	DRILL 11". SURFACE HOLE, F/ 650' - T/ 1,310", 660' @ 110 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,100/840 TORQUE ON OFF = 2,900/700 UP/DOWN/ ROT 67/64/65 K. DRAG 2 K. NOV ON LINE MUD WT 8.4 SLID 5' = 0.83% 2.3' BELOW & 1.2' RIGHT OF THE LINE NO HOLE ISSUES.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN			Spud Date: 6/17/2013
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 12:00	6.00	DRLSUR	02	B	P	1332	DRILL 11". SURFACE HOLE, F/ 1310' - T/ 1850", 540' @ 90 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 45, MOTOR RPM 83, TOTAL RPM 128. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1300/1000 TORQUE ON OFF = 2,900/1700 UP/DOWN/ ROT 75/72/73 K. DRAG 2 K. NOV ON LINE MUD WT 8.4 SLID 105' = 15.22% 2.03' BELOW & 0.63' RIGHT OF THE LINE NO HOLE ISSUES.
	12:00 - 18:00	6.00	DRLSUR	02	B	P	1872	DRILL 11". SURFACE HOLE, F/ 1850' - T/ 2330", 480' @ 80 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1410/1120 TORQUE ON OFF = 2,900/1700 UP/DOWN/ ROT 83/77/80 K. DRAG 3 K. NOV ON LINE MUD WT 8.4 SLID 253' = 48.19% 7.92' BELOW & 2.29' LEFT OF THE LINE LOST RETURNS @ 2300'
	18:00 - 19:30	1.50	DRLSUR	02	B	P	2352	DRILL 11". SURFACE HOLE, F/ 2,330' - T/2,517 ", 124.6' @ FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,570/1,290 TORQUE ON OFF = 3,000/1,800 UP/DOWN/ ROT 93/80/87 K. DRAG 3 K. NOV ON LINE MUD WT 8.4 SLID 0' = 0% 7.25 ' BELOW & 2.39' LEFT OF THE LINE LOST RETURNS @ 2300'
	19:30 - 22:00	2.50	DRLSUR	05	C	P	2539	CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS HALF FULL / 2-400 BBL UPRIGHT STORAGE TANKS FULL
	22:00 - 0:00	2.00	DRLSUR	06	D	P	2539	LAY DOWN DRILL PIPE AND DIRECTIONAL TOOLS.
6/19/2013	0:00 - 0:30	0.50	DRLSUR	12	A	P	2539	PRE JOB SAFETY MEETING WITH PRO PETRO RIG CREW . MOVE PIPE RACKS AND CATWALK. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	0:30 - 4:30	4.00	DRLSUR	12	C	P	2539	RAN 56 JOINTS (2,490.23') OF 8-5/8", 28#, J-55, LT&C CASING WITH TOPCO FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 2,131'. LANDED SHOE @ 2,487' KB. BAFFLE PLATE @ 2443.10' KB.
	4:30 - 9:30	5.00	DRLSUR	12	E	P	2539	PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS. RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING. PRESSURE TEST LINES TO 2000 PSI. PUMP 145 BBLS OF WATER AHEAD CLEARING SHOE. MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX AND PUMP 300 SX OF PREMIUM CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE. 61.4 BBLS MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY, DISPLACE WITH 152.4 BBLS OF FRESH WATER. NO RETURNS THROUGH OUT JOB. FINAL LIFT OF 315 PSI AT 4 BBL/MINUTE. BUMP THE PLUG WITH 615 PSI, HELD 615 PSI FOR 5 MINUTES, TESTED FLOAT AND FLOAT HELD. RELEASE RIG @ 09:30, 6/17/2013 TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 3% GR-3, & .25 LB/SX FLOCELE, 30.7 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO CEMENT RETURNS TO SURFACE. WAIT ON CEMENT 2.5 HOURS. TOP JOB # 2: CEMENT DOWN BACKSIDE WITH 225 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & .25 LB/SX FLO SEAL, 46 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. 2 BBLS CEMENT RETURNS TO SURFACE. HOLE STOOD FULL. RIG DOWN PRO PETRO CEMENTERS. (CEMENT JOB FINISHED @ 11:00 6/19/2013).
7/14/2013	0:00 - 2:00	2.00	MIRU3	01	C	P	2539	SKID RIG BACK 20'TO DRILL 6TH HOLE ON PAD,3J4CS RIG UP AFTER SKID
	2:00 - 3:00	1.00	PRPSPD	14	A	P	2539	NIPPLE UP BOPE, FUNCTION TEST PIPE & BLIND RAMS,X/O BAILS
	3:00 - 3:30	0.50	PRPSPD	15	A	P	2539	R/U A-1 TESTING TEST SURFACE CASING,1,500 PSI FOR 30 MIN
	3:30 - 7:00	3.50	PRPSPD	15	A	P	2539	TEST H&P EQUIP BLIND RAMS, PIPE RAMS , FLOOR VALVE, KILL LINES & KILL LINE VALVES, HCR VALVE + CHOKE LINE; INNER AND OUTER CHOKE VALVES & MANIFOLD TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @ 10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5 MINUTES + 2500 PSI HIGH

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN			Spud Date: 6/17/2013
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 7:30	0.50	PRPSPD	15	A	P	2539	TEST SWACO ORBIT VALVES 1,000 HIGH , 250 LOW
	7:30 - 8:00	0.50	PRPSPD	14	B	P	2539	INSTALL WEAR BUSHING
	8:00 - 9:30	1.50	PRPSPD	06	A	P	2539	PICK UP MUD MOTOR, BIT, DIRECTIONAL TOOLS & SURFACE TEST RIH W/ HWDP TO 800',BREAK CIRC
	9:30 - 10:00	0.50	PRPSPD	07	B	P	2539	LEVEL DERRICK,PRS SPUD INSP
	10:00 - 10:30	0.50	PRPSPD	06	A	P	2529	TIH TO 2,150'
	10:30 - 11:30	1.00	PRPSPD	09	A	P	2539	SLIP & CUT DRILL LINE
	11:30 - 12:00	0.50	PRPSPD	07	A	P	2539	DAILY RIG SERVICE
	12:00 - 12:30	0.50	DRLPRC	02	E	P	2539	TAG CEMENT @2,400 DRILL FLOAT TRACK,F/ 2,400 BAFFLE @ 2,465 SHOE@ 2,509 NEW HOLE @2,539
	12:30 - 18:00	5.50	DRLPRC	02	B	P	2539	DRILL / SURVEY/ F/ 2,539' TO 3,500' = 961' @ 174.2 FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 123 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,250/1,910 TORQUE ON/OFF BTM 7,000/5,000 PICK UP WT 115,000 SLACK OFF WT 90,000 ROT WT 95,000 SLIDES 140' IN 75 MIN 14.57% OF FOOTAGE DRILLED,25 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER
	18:00 - 19:30	1.50	DRLPRC	02	B	P	3500	DRILL / SURVEY/ F/ 3,500' TO 3,656' = 156' @ 104 FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 1,650/ 1,450 TORQUE ON/OFF BTM 5,000/3,000 PICK UP WT 115,000 SLACK OFF WT 90,000 ROT WT 95,000 SLIDES 20' IN 15 MIN 12.8% OF FOOTAGE DRILLED,16.6 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER
	19:30 - 0:00	4.50	DRLPRC	06	H	Z	3656	***SPIKE ON MUD MOTOR, ***LOW DIFFERENTIAL PRESSURE, LOW ROP, TRIP OUT HOLE, CHANGE OUT MUD MOTOR & BIT,
7/15/2013	0:00 - 0:30	0.50	DRLPRC	06	H	P	3656	FINISH TRIP IN HOLE F/ 2,900-3,656

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	0:30 - 6:00	5.50	DRLPRV	02	B	P	3656	DRILL / SURVEY/ F/ 3,656' TO 4.500' =844' @ 153.4 FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,380/ 1,995 TORQUE ON/OFF BTM 6,000/3,000 PICK UP WT 120,000 SLACK OFF WT 103,000 ROT WT 110,000 SLIDES 90' IN 55 MIN 10.6% OF FOOTAGE DRILLED,16.6 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.2 VIS 33 NOV-D WATER SWACO OFF LINE
	6:00 - 12:00	6.00	DRLPRV	02	B	P	4500	DRILL / SURVEY/ F/ 4,500' TO 5,450' =950' @ 158.3 FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,380/ 1,995 TORQUE ON/OFF BTM 7,000/ 6,000 PICK UP WT 139,000 SLACK OFF WT 109,000 ROT WT 130,000 SLIDES 40' IN 25 MIN 10% OF FOOTAGE DRILLED,6.9 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.2 VIS 33 NOV-D WATER SWACO OFF LINE
	12:00 - 12:30	0.50	DRLPRV	07	A	P	5460	DAILY RIG SERVICE
	12:30 - 18:00	5.50	DRLPRV	02	B	P	5460	DRILL / SURVEY/ F/ 5,460' TO 6,143' =683' @ 124 FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,375/ 2,175 TORQUE ON/OFF BTM 8,000/ 7,000 PICK UP WT 146,000 SLACK OFF WT 130,000 ROT WT 136,000 SLIDES 20' IN 30 MIN 2.9% OF FOOTAGE DRILLED,10 %OF HRS DRILLED 185 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.2 VIS 33 NOV-D WATER SWACO OFF LINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLPRV	02	B	P	6143	DRILL / SURVEY/ F/ 6,143' TO 6,678' =535' @ 89 FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,285/ 2,110 TORQUE ON/OFF BTM 7,000/ 6,000 PICK UP WT 176,000 SLACK OFF WT 130,000 ROT WT 146,000 SLIDES 56' IN 75 MIN 10.4% OF FOOTAGE DRILLED,20.8 %OF HRS DRILLED 0BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER SWACO OFF LINE
7/16/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	6678	DRILL / SURVEY/ F/ 6,678' TO 7,200' =522=' @ 87.3FPH WOB 20,000-24,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,285/ 2,110 TORQUE ON/OFF BTM 7,000/ 6,000 PICK UP WT 176,000 SLACK OFF WT 135,000 ROT WT 153,000 SLIDES 22' IN 35 MIN 5.2% OF FOOTAGE DRILLED,9.7 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER SWACO OFF LINE
	6:00 - 13:30	7.50	DRLPRV	02	B	P	7200	DRILL / SURVEY/ F/ 7,200' TO 7,900' =700=' @ 93.3FPH WOB 20,000-25,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,675/ 2,375 TORQUE ON/OFF BTM 10,000/ 9,000 PICK UP WT 185,000 SLACK OFF WT 152,000 ROT WT 164,000 SLIDES 20' IN 60 MIN 2.85% OF FOOTAGE DRILLED,`13.3 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER SWACO OFF LINE
	13:30 - 14:00	0.50	DRLPRV	07	A	P	7900	DAILY RIG SERVICE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN			Spud Date: 6/17/2013
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:00 - 17:30	3.50	DRLPRV	02	B	P	7900	DRILL / SURVEY/ F/ 7,900' TO 8188' =288=' @ 93.3FPH WOB 20,000-25,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 130 SPM= 585 GPM PUMP PRESSURE ON/OFF BTM 2,695/ 2,375 TORQUE ON/OFF BTM 11,000/ 9,000 PICK UP WT 195,000 SLACK OFF WT 142,000 ROT WT 169,000 SLIDES 30' IN 45 MIN 9% OF FOOTAGE DRILLED,`25 %OF HRS DRILLED 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER SWACO OFF LINE
	17:30 - 0:00	6.50	DRLPRV	08	B	Z	8188	TROUBLE SHOOT TOP DRIVE / FOR ELECTRICAL PROBLEMS ,BLOWER & OILER DISPLACE HOLE W/ 11.2 MUD
7/17/2013	0:00 - 1:00	1.00	DRLPRV	08	B	Z	8188	RIG REPAIR TROUBLE SHOOT TOP DRIVE ELECTRICAL PROBLEMS ,X/O BAD ELECTRICAL PLUG *** TOP DRIVE REPAIR ***
	1:00 - 6:00	5.00	DRLPRV	02	B	P	8188	DRILL / SURVEY/ F/ 8,188' TO 8,500' =312=' @ 62.4FPH WOB 20,000-25,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 110 PUMPS 130 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2,650/ 2,340 TORQUE ON/OFF BTM 11,000/ 9,000 PICK UP WT 190,000 SLACK OFF WT 142,000 ROT WT 168,000 NO SLIDES 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 11.2VIS 35 NOV-D WATER SWACO OFF LINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 11:30	5.50	DRLPRV	02	B	P	8500	DRILL / SURVEY/ F/ 8,500' TO 8,883' TD =383=' @ 69.6FPH WOB 20,000-25,000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 110 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2,650/ 2,340 TORQUE ON/OFF BTM 9,000/ 9,000 PICK UP WT 201,000 SLACK OFF WT 156,000 ROT WT 166,000 NO SLIDES 0 BBLS FLUID LOSS PUMPING 5-10 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 11.8 VIS 38 NOV-D WATER SWACO OFF LINE
	11:30 - 12:30	1.00	DRLPRV	05	C	P		CIRC BTM'S UP @ 8,883' TD
	12:30 - 13:30	1.00	DRLPRV	06	E	P		10 STD SHORT TRIP WITH NO PROBLEMS OR FILL
	13:30 - 15:00	1.50	DRLPRV	05	C	P		CIRC & CLEAN HOLE @ 8,883'
	15:00 - 23:00	8.00	DRLPRV	06	A	P		TOOH LAYING DOWN TUBULARS FROM 8,883' TO BIT WITH NO PROBLEMS - HOLE IN GOOD SHAPE
	23:00 - 23:30	0.50	DRLPRV	14	B	P		PULL WEAR BUSHING - ID OF WEAR BUSHING IN GOOD SHAPE
	23:30 - 0:00	0.50	DRLPRV	12	A	P		PJSM CHANGE BAILS & RIG UP KIMZEY CASING CREW
7/18/2013	0:00 - 0:30	0.50	CSGPRO	12	A	P		CONTINUE TO RIG UP KIMZEY CASING EQUIPMENT
	0:30 - 7:30	7.00	CSGPRO	12	C	P	0	RUN 4 1/2",11.60# - P-110 / I-80 PRODUCTION CASING TO 8,872.03 / SHOE @ 8,872.03' / FLOAT COLLAR @ 8,826.76' / MVerde Marker @ 6,785.52' / X-O @ 5,032.58' / 86 JTS OF LTCP-110 / 113 JTS OF DQX I-80 TOTAL JTS RAN 201 / LAND HANGER WITH 85k
	7:30 - 9:00	1.50	CSGPRO	05	A	P	8872	CIRC HOLE CLEAN @ 8,883' / MEANWHILE RIG DOWN KIMZEY CASING EQUIPMENT AND HOLD PJSM WITH BJ CEMENTERS

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 5/30/2013		End Date: 7/18/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 12:00	3.00	CSGPRO	12	E	P		INSTALL BJ CMT HEAD , TEST PUMP & LINES TO 5,000 PSI, ,DROP BOTTOM PLUG PUMP 25 BBLS FW PUMP 500 SKS LEAD CEMENT @ 12.5 PPG, 176.3 BBL SLURRY (PREM LITE II + .0.25 pps CELLO FLAKE + 5 pps KOL SEAL +0.4 bwocFL52+ .05 lb/sx STATIC FREE + 8% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.35 % R-3 + 101.8% FRESH WATER / (10.44 gal/sx,1.98 yield) + 1030 SX TAIL @ 14.3 ppg 242.1 BBL SLURRY (CLS G 50/50 POZ + 10% SALT + .005lbs/sx STATIC FREE + .2% R3 +0.5%bwocEC-1+ .002 GPS FP-6L + 2% BENTONITE + 58.9% FW / (5.94 gal/sx, 1.32 yield) / DROP TOP PLUG & DISPLACE W/ 137.2 BBLS H2O + ADDITIVES / PLUG DOWN @ 11:20 HOURS / FLOATS HELD W/ 1.50 BBLS H2O RETURNED TO INVENTORY/ GOOD CIRC THROUGH OUT 4 BBLS CEMENT TO PIT / LIFT PRESSURE @ 1954 PSI / BUMP PRESSURE TO 2461 PSI / TOP OF TAIL CEMENT CALCULATED @ 3,915' / JOB WENT WELL WITH NO PROBLEMS / RIG DOWN CMT EQUIPMENT
	12:00 - 13:30	1.50	CSGPRO	14	B	P		FLUSH BOP'S & EQUIPMENT / SET PACK OFF WITH CAMERON / CHANGE OUT BAILS
	13:30 - 18:00	4.50	CSGPRO	14	A	P		NIPPLE DOWN BOP'S & EQUIPMENT RELEASE RIG @ 18:00 HRS 7/18/13

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-3J4CS GREEN	Wellbore No.	OH
Well Name	NBU 1022-3J4CS	Wellbore Name	NBU 1022-3J4CS
Report No.	1	Report Date	9/9/2013
Project	UTAH-UINTAH	Site	NBU 1022-03J PAD
Rig Name/No.		Event	COMPLETION
Start Date	9/3/2013	End Date	9/25/2013
Spud Date	6/17/2013	Active Datum	RKB @5,244.00usft (above Mean Sea Level)
UWI	NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	5,621.0 (usft)-8,738.0 (usft	Start Date/Time	9/9/2013 12:00AM
No. of Intervals	60	End Date/Time	9/9/2013 12:00AM
Total Shots	265	Net Perforation Interval	76.00 (usft)
Avg Shot Density	3.49 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/9/2013 12:00AM	WASATCH/			5,621.0	5,624.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/9/2013 12:00AM	WASATCH/			5,763.0	5,766.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,032.0	6,033.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,070.0	6,071.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,116.0	6,117.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,204.0	6,205.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,266.0	6,267.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,468.0	6,470.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,545.0	6,547.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,586.0	6,588.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	WASATCH/			6,636.0	6,638.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			6,875.0	6,878.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			6,893.0	6,896.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,210.0	7,211.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,236.0	7,237.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,344.0	7,345.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,394.0	7,395.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,426.0	7,427.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,530.0	7,531.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,540.0	7,541.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,563.0	7,564.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,574.0	7,575.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/9/2013 12:00AM	MESAVERDE/			7,671.0	7,672.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,716.0	7,717.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,731.0	7,732.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,743.0	7,744.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,752.0	7,753.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,760.0	7,761.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,776.0	7,777.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,802.0	7,803.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,824.0	7,825.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,872.0	7,873.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,894.0	7,895.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,912.0	7,913.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,931.0	7,932.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,970.0	7,971.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			7,994.0	7,995.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,002.0	8,003.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,026.0	8,027.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,040.0	8,041.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,108.0	8,109.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,137.0	8,138.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,172.0	8,173.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/9/2013 12:00AM	MESAVERDE/			8,186.0	8,187.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,208.0	8,209.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,229.0	8,230.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,253.0	8,254.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,268.0	8,269.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,293.0	8,294.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,314.0	8,315.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,346.0	8,347.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,381.0	8,382.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,397.0	8,398.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,416.0	8,417.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,424.0	8,425.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,451.0	8,452.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,495.0	8,497.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,596.0	8,598.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,718.0	8,720.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/9/2013 12:00AM	MESAVERDE/			8,736.0	8,738.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No:
Event: COMPLETION	Start Date: 9/3/2013		End Date: 9/25/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/6/2013	-							
9/3/2013	12:00 - 13:00	1.00	SUBSPR	52	B	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 73 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 513 PSI HELD FOR 5 MIN LOST -258 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN NO PRESSURE ON SURFACE CASING FILLED SURFACE WITH 2 BBLS H2O
9/6/2013	6:30 - 6:45	0.25		48		P		HSM,
	7:00 - 11:00	4.00		37	C	P		MIRU CASEDHOLE SOLUTIONS PERF STAGE 1 AS PER DESIGN
9/9/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM, OVER HEAD LOADS

RECEIVED: Oct. 21, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN			Spud Date: 6/17/2013
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No:
Event: COMPLETION	Start Date: 9/3/2013		End Date: 9/25/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:00	10.00	FRAC	36	B	P		REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS FRAC STG #1] WHP=1,670#, BRK DN PERFS=4,114#, @=3.8 BPM, INTIAL ISIP=2,796#, FG=.76, FINAL ISIP=2,653#, FG=.75, SET PLUG & PERFORATE STG #2 FRAC STG #2] WHP=1,953#, BRK DN PERFS=5,310#, @=4.9 BPM, INTIAL ISIP=2,555#, FG=.74, FINAL ISIP=2,814#, FG=.77, SET PLUG & PERFORATE STG #3 FRAC STG #3] WHP=2,297#, BRK DN PERFS=3,026#, @=3.8 BPM, INTIAL ISIP=2,331#, FG=.72, FINAL ISIP=2,730#, FG=.77, SET PLUG & PERFORATE STG #4 FRAC STG #4] WHP=2,234#, BRK DN PERFS=4,290#, @=5.4 BPM, INTIAL ISIP=2,338#, FG=.73, FINAL ISIP=2,625#, FG=.76, SET PLUG PERFORATE STG #5 FRAC STG #5] WHP=2,072#, BRK DN PERFS=2,248#, @=3.8 BPM, INTIAL ISIP=2,072#, FG=.69, FINAL ISIP=2,319#, FG=.73, SWIFN.
9/10/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM, SLIPPERY CONDITIONS
	7:00 - 18:00	11.00	FRAC	36	B	P		SET PLUG AND PERFORATE STG #6 FRAC STG #6] WHP=1,853#, BRK DN PERFS=2,376#, @=5.2 BPM, INTIAL ISIP=1,545#, FG=.68, FINAL ISIP=2,598#, FG=.77, SET PLUG AND PERFORATE STG #7 FRAC STG #7] WHP=1,637#, BRK DN PERFS=3,927#, @=4.1 BPM, INTIAL ISIP=1,776#, FG=.67, FINAL ISIP=2,481#, FG=.77, SET PLUUG AND PERFORATE STG #8 FRAC STG #8] WHP=1,491#, BRK DN PERFS=3,765#, @=3.8 BPM, INTIAL ISIP=2,078#, FG=.72, FINAL ISIP=5,429#, FG=.77, SET PLUG AND PERFORATE STG #9 SWIFN.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN			Spud Date: 6/17/2013
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No:
Event: COMPLETION	Start Date: 9/3/2013		End Date: 9/25/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/11/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM, WATCH YOUR STEP
	7:00 - 17:30	10.50	FRAC	36	B	P		SET PLUG AND PERFORATE STG #9 FRAC STG #9] WHP=482#, BRK DN PERFS=2,891#, @=4.3 BPM, INTIAL ISIP=1,524#, FG=.65, FINAL ISIP=1,697#, FG=.68, SET PLUG AND PERFORATE STG #10 FRAC STG #10] WHP=409#, BRK DN PERFS=2,266#, @=3 BPM, INTIAL ISIP=1,524#, FG=.66, FINAL ISIP=1,743#, FG=.69, SET PLUG AND PERFORATE STG #11 FRAC STG #11] WHP=442#, BRK DN PERFS=2,345#, @=4.3 BPM, INTIAL ISIP=1,850#, FG=.74, FINAL ISIP=1,791#, FG=.73, SWIFN
9/12/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM, RIGGING DOWN
	7:00 - 12:00	5.00	FRAC	36	B	P		SETPLUG AND PERFORATE STG #12 FRAC STG #12] WHP=195#, BRK DN PERFS=2,262#, @=3.6 BPM, INTIAL ISIP=1,234#, FG=.66, FINAL ISIP=1,436#, FG=.69, SET TOP KILL TOTAL BBLS= 12469 TOTAL SAND= 270019
9/24/2013	12:00 - 13:30	1.50	DRLOUT	30	A	P		MOVE OVER & RIGGED UP.
	13:30 - 17:00	3.50	DRLOUT	31	I	P		ND WH NU BOPS, RU FLOOR & TBG EQUIP. TALLY & PU 37/8 BIT,POBS, 1.875 X/N 150 JTS 23/8 J-55, L-80 PUP JT, 28 JTS 23/8 L-80. TAG UP @ 5556' SWI SDFN.
9/25/2013	7:00 - 7:30	0.50	DRLOUT	48		P		HSM, WATCHING FOR LEAKS ON FLOW LINE.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN			Spud Date: 6/17/2013
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No:
Event: COMPLETION	Start Date: 9/3/2013		End Date: 9/25/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:30 - 16:00	8.50	DRLOUT					RU DRLG EQUIP, BROKE CIRC CONV, TEST BOPS TO 3,000 PSI, RIH. C/O 15' SAND TAG 1ST PLUG @ 5571' DRL PLG IN 3 MIN, 0 PSI INCREASE RIH. C/O 15' SAND TAG 2ND PLUG @ 5796' DRL PLG IN 4 MIN, 100 PSI INCREASE RIH. C/O 40' SAND TAG 3RD PLUG @ 6297' DRL PLG IN 5 MIN, 0 PSI INCREASE RIH. C/O 30' SAND TAG 4TH PLUG @ 6668' DRL PLG IN 1 MIN, 0 PSI INCREASE RIH. C/O 20' SAND TAG 5TH PLUG @ 6926' DRL PLG IN 5 MIN, 300 PSI INCREASE RIH. C/O 35' SAND TAG 6TH PLUG @ 7457' DRL PLG IN 3 MIN, 400 PSI INCREASE RIH. C/O 30' SAND TAG 7TH PLUG @ 7702' DRL PLG IN 7 MIN, 500 PSI INCREASE RIH. C/O 25' SAND TAG 8TH PLUG @ 7855' DRL PLG IN 7 MIN, 300 PSI INCREASE RIH. C/O 10' SAND TAG 9TH PLUG @ 8016' DRL PLG IN 9 MIN, 700 PSI INCREASE RIH. C/O 15' SAND TAG 10TH PLUG @ 8243' DRL PLG IN 6 MIN, 400 PSI INCREASE RIH C/O 15' SAND TAG 11TH PLUG @ 8367' DRL PLG IN 8 MIN, 500 PSI INCREASE RIH C/O 25' SAND TAG 12TH PLUG @ 8482' DRL PLG IN 7 MIN, 700 PSI INCREASE RIH C/O TO 8798', CIRC CLN, RD SWIVEL, L/D 14 JTS, LAND TBG, ND BOPS NU WH, TEST FL TO 3,000 PSI, PUMPED OFF BIT, TURN WELL TO FB CREW.SDFN KB = 19' 41/16 HANGER = .83' (SURFACE VALVE OPEN & LOCKED) 116 JTS 23/8 L-80 = 3675.85' SICP 2600 FTP 100 6' L-80 PUP JT = 6.13' 150 JTS 23/8 J-55 = 4652.64' POBS W/ 1.875 X/N = 2.20' EOT @ 8363.65' TWTR 12,848 BBLS TWR 1,400 BBLS TWLTR 11,448 BBLS

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-3J4CS GREEN		Spud Date: 6/17/2013	
Project: UTAH-UINTAH	Site: NBU 1022-03J PAD		Rig Name No:
Event: COMPLETION	Start Date: 9/3/2013		End Date: 9/25/2013
Active Datum: RKB @5,244.00usft (above Mean Sea Level)	UWI: NW/SE/0/10/S/22/E/3/0/0/26/PM/S/1476/E/0/2294/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								317 JT HAULED OUT, 150 J-55, 176 L-80. 266 LANDED 51 TO RETURN

Anadarko Petroleum Corporation

Weatherford

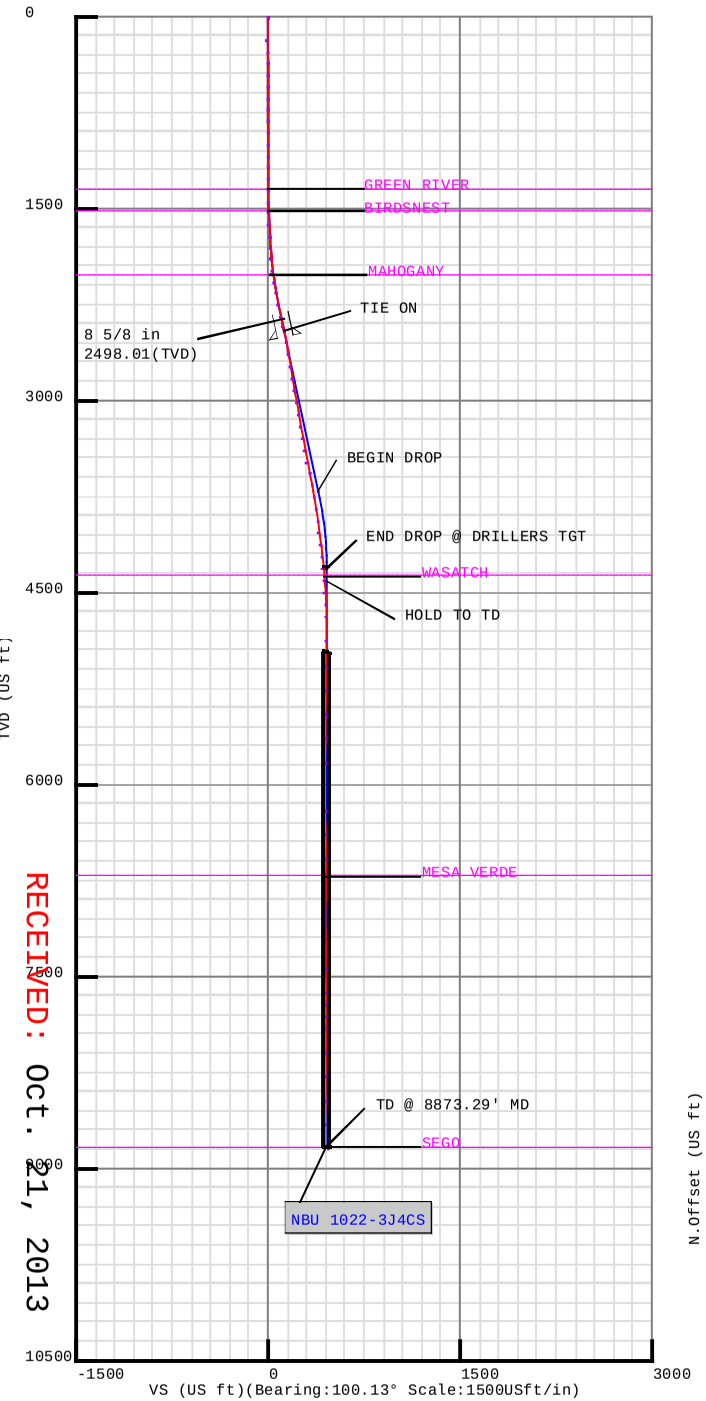
Plan Data for NBU 1022-3J4CS

Field: NATURAL BUTTES_ANADARKO_NAD27
Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD27 / UTM zone 12N

Site: NBU 1022-3J PAD
Unit: USFeet TVD Reference:
Company Name: ANADARKO
Position: Northing: 14520795.16USft Latitude: 39.974871°
Easting: 2081911.95USft Longitude: -109.424172°
North Reference: True Grid Convergence: 1.01°
Elevation Above VRD: 5218.00USft

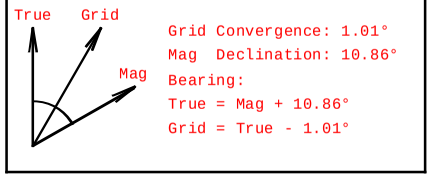
Slot: NBU 1022-3J4CS
Position:
Offset is from Site centre
+N/-S: -29.86USft Northing: 14520765.29USft Latitude: 39.974789°
+E/-W: -0.84USft Easting: 2081911.64USft Longitude: -109.424175°
Elevation Above VRD: 5218.00USft

API well Number: 43047504380000



Survey Point Information:
DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD (USft)	Inc (°)	Az (°)	TVD (USft)	+N/-S (USft)	+E/-W (USft)	VSec (USft)	DLS (DLSU)	Toolface (°)	Build (DLSU)	Turn (DLSU)	Annotations
2474.00	12.13	94.46	2463.79	10.46	130.82	126.94	0.31	168.1R	-0.30	0.30	TIE ON
2568.00	11.92	88.20	2555.74	10.00	150.37	146.27	1.40	102.2L	-0.22	-6.66	FIRST WFT MWD SVY
8833.00	1.10	144.58	8793.98	-68.69	466.04	470.85	0.31	165.9R	-0.30	3.95	LAST WFT MWD SVY
8883.00	1.10	144.58	8843.97	-69.47	466.59	471.54	0.00	0.0R	0.00	0.00	PROJECTION TO TD



Grid Convergence: 1.01°
Mag Declination: 10.86°
Bearing:
True = Mag + 10.86°
Grid = True - 1.01°

Target Set Information:
Name: 3J4CS

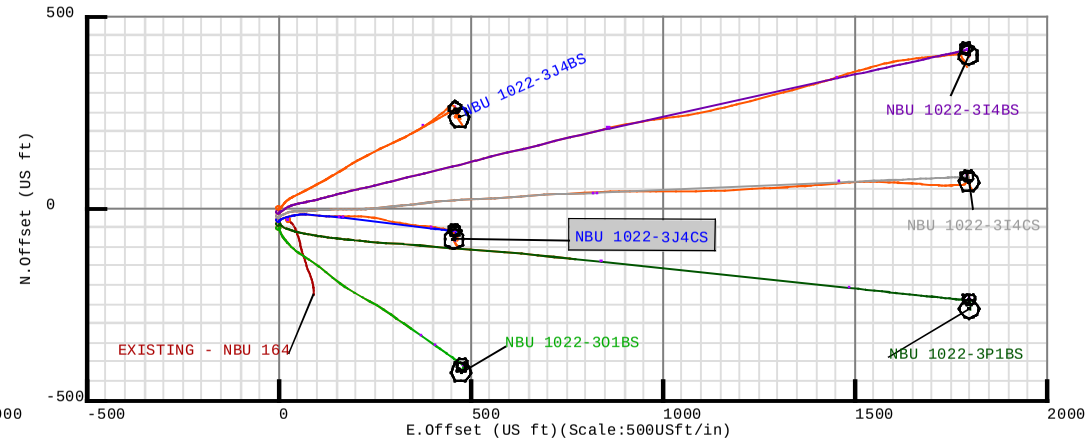
Name	TVD (USft)	Lat (°)	Long (°)
PBHL	8830.00	39.974646	-109.422535
25' CYL	6901.00	39.974646	-109.422535
INTERCEPT	4972.00	39.974702	-109.422531
DRILLERS TGT	4309.07	39.974711	-109.422531

Casing Point Information:

Name	MD (USft)	TVD (USft)
8 5/8 in	2509.00	2498.01

Formation Point Information:

Name	TVD (USft)	Elevation (USft)	MD (USft)
GREEN RIVER	1350.00	3894.00	1350.02
BIRDSNEST	1521.00	3723.00	1521.12
MAHOGANY	2021.00	3223.00	2023.03
WASATCH	4372.00	872.00	4415.23
MESA VERDE	6714.00	-1470.00	6757.26
SEGO	8830.00	-3586.00	8873.29



Anadarko Petroleum Corporation

5D Survey Report

ANADARKO

Field Name:	*NATURAL BUTTES_ANADARKO_NAD27*
Site Name:	*NBU 1022-3J PAD*
Well Name:	*NBU 1022-3J4CS*
Survey:	*Definitive Survey*

Weatherford®

DEFINITIVE SURVEYS FOR THE NBU 1022-3J4CS

Site Name NBU 1022-3J PAD	**Units :** US ft	**North Reference** : True	**Convergence Angle :** 1.01
	Position	**Northing :** 14520795.16 US ft	**Latitude :** 39.974871
		Easting : 2081911.95 US ft	**Longitude :** -109.424172
	Elevation above: 5218.00 US ft		
	Comment :		

Slot Name NBU 1022-3J4CS		**Position (Offsets relative to Site Centre)**	
	+N / -S : -29.86 US ft	**Northing :** 14520765.29 US ft	**Latitude :** 39.974789
	+E / -W : -0.84 US ft	**Easting :** 2081911.64 US ft	**Longitude :** -109.424175
	Slot TVD Reference : Ground Elevation		
	Elevation above : 5218.00 US ft		
	Comment :		

Well Name NBU 1022-3J4CS	**Type :** Main well		**UWI :**
	Rig Height *Drill Floor* : 26.00 US ft **Relative to :** 5244.00 US ft		**Comment :**
	Closure Distance : 471.736 US ft		**Closure Azimuth :** 98.469°
	Vertical Section (Position of Origin Relative to Slot)		
		+N / -S : 29.86 US ft	**+E / -W :** 0.84 US ft **Az :** 100.13°

Target Set

Name : 3J4CS **Number of Targets :** 4

Comment :

TargetName: PBHL **Shape:** Cuboid		**Position (Relative to centre)**	
	+N / -S : -52.08US ft	**Northing :** 14520721.34 US ft	**Latitude :** 39°58'28.725600"
	+E / -W : 459.57 US ft	**Easting :** 2082372.05US ft	**Longitude :** -109°25'21.126000"
	TVD (Drill Floor) : 8830.00 US ft		
	Orientation	**Azimuth :** 0.00°	**Inclination :** 0.00°
	Dimensions	**Length :** 1.00 US ft	**Breadth :** 1.00 US ft **Height :** 1.00 US ft

TargetName: INTERCEPT **Shape:** Cuboid	**Position (Relative to centre)** **+N / -S :** -31.72US ft **Northing :** 14520741.71 US ft **Latitude :** 39°58'28.926879" **+E / -W :** 460.57 US ft **Easting :** 2082372.70US ft **Longitude :** -109°25'21.113095" **TVD (Drill Floor) :** 4972.00 US ft **Orientation** **Azimuth :** 0.00° **Inclination :** 0.00° **Dimensions** **Length :** 20.00 US ft **Breadth :** 20.00 US ft **Height :** 20.00 US ft
Target Name: 25' CYL **Shape:** Cylinder	**Position (Relative to centre)** **+N / -S :** -52.08US ft **Northing :** 14520721.34US ft **Latitude :** 39°58'28.725600" **+E / -W :** 459.57US ft **Easting :** 2082372.05 US ft **Longitude :** -109°25'21.126000" **TVD (Drill Floor)** : 6901.00 US ft **Orientation** **Azimuth :** 1.01° **Inclination :** 0.00° **Dimensions** **Radius :** 25.00 US ft **Length :**3858.00 US ft
Target Name: DRILLERS TGT **Shape:** Cylinder	**Position (Relative to centre)** **+N / -S :** -28.51US ft **Northing :** 14520744.93US ft **Latitude :** 39°58'28.958608" **+E / -W :** 460.73US ft **Easting :** 2082372.80 US ft **Longitude :** -109°25'21.111038" **TVD (Drill Floor)** : 4309.07 US ft **Orientation** **Azimuth :** 1.01° **Inclination :** 0.00° **Dimensions** **Radius :** 15.00 US ft **Length :**1.00 US ft

Survey Name :Definitive Survey

Date : 13/Jun/2013 **Survey Tool :** **Comment :** **Company :**

Magnetic Model

Model Name: BGGM **Date:** 13/Jun/2013 **Field Strength:** 52095.6 nT **Declination:** 10.86° **Dip:** 65.80°

Survey Tool Ranges

Name	Start MD (US ft)	End MD (US ft)	Source Survey
MWD	0.00	2474.00	SURFACE SURVEYS
MWD	2474.00	8883.00	WFT MWD SURVEYS

5D Survey Report

Well path created using minimum curvature

Survey Points (Relative to centre, TVD relative to Drill Floor)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	39.974789	-109.424175	0.00	0.00	0.00	4.43	0.00	0.00	2
22.00	0.00	0.00	22.00	0.00	0.00	39.974789	-109.424175	0.00	0.00	22.00	4.43	0.00	0.00	
201.00	0.18	194.65	201.00	-0.27	-0.07	39.974788	-109.424175	0.10	194.65	179.00	4.40	-0.00	0.00	
283.00	0.26	130.49	283.00	-0.52	0.04	39.974788	-109.424175	0.30	254.10	82.00	4.55	-0.00	0.00	
368.00	0.09	67.30	368.00	-0.62	0.25	39.974787	-109.424174	0.27	200.11	85.00	4.78	-0.00	0.00	
464.00	0.24	165.27	464.00	-0.78	0.37	39.974787	-109.424174	0.28	117.41	96.00	4.93	-0.00	0.00	
554.00	0.09	146.93	554.00	-1.02	0.45	39.974786	-109.424173	0.17	190.38	90.00	5.05	-0.00	0.00	
644.00	0.26	215.48	644.00	-1.25	0.37	39.974786	-109.424174	0.27	88.80	90.00	5.01	-0.00	0.00	
734.00	0.26	108.26	734.00	-1.48	0.45	39.974785	-109.424173	0.47	216.39	90.00	5.13	-0.00	0.00	
824.00	0.44	193.60	824.00	-1.88	0.56	39.974784	-109.424173	0.55	117.08	90.00	5.31	-0.00	0.00	
914.00	0.35	127.06	913.99	-2.38	0.70	39.974782	-109.424172	0.49	226.88	90.00	5.53	-0.00	0.00	
1004.00	0.38	118.47	1003.99	-2.69	1.18	39.974782	-109.424171	0.07	294.39	90.00	6.06	-0.00	0.00	
1094.00	0.44	356.59	1093.99	-2.49	1.42	39.974782	-109.424170	0.80	211.39	90.00	6.26	-0.00	0.00	
1184.00	0.62	0.85	1183.99	-1.65	1.41	39.974784	-109.424170	0.20	14.48	90.00	6.11	-0.00	0.00	
1274.00	0.62	8.94	1273.98	-0.69	1.49	39.974787	-109.424170	0.10	94.04	90.00	6.02	-0.00	0.00	
1364.00	0.98	52.06	1363.97	0.27	2.18	39.974790	-109.424167	0.75	81.90	90.00	6.52	-0.00	0.00	
1454.00	1.85	63.96	1453.95	1.38	4.09	39.974793	-109.424160	1.02	24.67	90.00	8.21	-0.00	0.00	
1544.00	3.43	64.40	1543.85	3.18	7.82	39.974798	-109.424147	1.76	0.95	90.00	11.57	-0.00	0.00	
1634.00	3.61	60.71	1633.68	5.73	12.72	39.974805	-109.424130	0.32	306.62	90.00	15.94	-0.00	0.00	
1724.00	3.08	73.28	1723.53	7.81	17.51	39.974810	-109.424113	1.00	132.02	90.00	20.29	-0.00	0.00	
1814.00	4.40	80.22	1813.33	9.09	23.23	39.974814	-109.424092	1.55	22.41	90.00	25.69	-0.00	0.00	
1904.00	5.98	75.74	1902.96	10.83	31.17	39.974819	-109.424064	1.81	343.38	90.00	33.21	-0.00	0.00	
1994.00	8.09	79.60	1992.28	13.13	41.95	39.974825	-109.424025	2.40	14.55	90.00	43.41	-0.00	0.00	
2084.00	9.85	81.19	2081.17	15.46	55.78	39.974831	-109.423976	1.97	8.80	90.00	56.62	-0.00	0.00	
2174.00	10.55	95.07	2169.77	15.91	71.60	39.974833	-109.423919	2.83	81.01	90.00	72.11	-0.00	0.00	
2264.00	10.90	97.09	2258.19	14.13	88.25	39.974828	-109.423860	0.57	48.04	90.00	88.82	-0.00	0.00	
2354.00	11.78	94.37	2346.44	12.38	105.86	39.974823	-109.423797	1.14	327.37	90.00	106.46	-0.00	0.00	
2444.00	12.22	94.37	2434.47	10.95	124.51	39.974819	-109.423731	0.49	0.00	90.00	125.07	-0.00	0.00	
2474.00	12.13	94.46	2463.79	10.46	130.82	39.974818	-109.423708	0.31	168.13	30.00	131.37	-0.00	0.00	
2568.00	11.92	88.20	2555.74	10.00	150.37	39.974816	-109.423638	1.40	257.80	94.00	150.69	0.11	1.08	
2662.00	9.93	88.76	2648.03	10.48	168.18	39.974818	-109.423575	2.12	177.22	94.00	168.14	1.97	3.36	
2756.00	8.76	89.92	2740.78	10.67	183.44	39.974818	-109.423520	1.26	171.43	94.00	183.13	6.45	5.91	
2851.00	9.25	90.74	2834.61	10.58	198.31	39.974818	-109.423467	0.53	15.08	95.00	197.78	11.59	8.10	
2946.00	10.81	94.09	2928.15	9.84	214.83	39.974816	-109.423408	1.75	22.16	95.00	214.18	15.52	8.88	
3040.00	11.20	96.47	3020.42	8.19	232.69	39.974811	-109.423345	0.64	50.53	94.00	232.05	17.72	8.79	
3134.00	9.61	96.42	3112.88	6.28	249.56	39.974806	-109.423284	1.69	180.30	94.00	249.00	20.53	9.00	
3229.00	9.44	102.61	3206.57	3.69	265.05	39.974799	-109.423229	1.09	102.47	95.00	264.69	25.63	5.69	
3323.00	10.63	104.99	3299.13	-0.23	280.95	39.974788	-109.423172	1.34	20.39	94.00	281.03	29.11	2.22	
3418.00	10.63	99.36	3392.50	-3.92	298.06	39.974778	-109.423111	1.09	267.23	95.00	298.53	31.27	3.32	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)														
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CI (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
3512.00	10.44	97.36	3484.92	-6.42	315.06	39.974771	-109.423051	0.44	241.56	94.00	315.70	33.76	3.96	
3606.00	10.98	100.13	3577.28	-9.09	332.32	39.974764	-109.422989	0.79	45.00	94.00	333.16	36.22	1.69	
3700.00	10.75	100.36	3669.60	-12.24	349.75	39.974755	-109.422927	0.25	169.44	94.00	350.88	38.27	0.43	
3795.00	8.63	90.99	3763.24	-13.96	365.60	39.974751	-109.422870	2.77	212.09	95.00	366.78	41.39	7.14	
3889.00	9.06	96.86	3856.12	-14.96	380.00	39.974748	-109.422819	1.06	67.45	94.00	381.13	44.37	3.71	
3984.00	8.44	96.36	3950.02	-16.63	394.35	39.974743	-109.422768	0.66	186.75	95.00	395.55	43.71	4.19	
4078.00	8.31	99.36	4043.02	-18.50	407.91	39.974738	-109.422719	0.48	108.05	94.00	409.23	40.68	1.83	
4172.00	7.06	99.61	4136.17	-20.57	420.31	39.974733	-109.422675	1.33	178.59	94.00	421.80	35.53	1.34	
4267.00	5.75	103.61	4230.58	-22.66	430.69	39.974727	-109.422638	1.46	163.17	95.00	432.39	29.28	-1.24	
4361.00	5.00	107.74	4324.16	-25.02	439.17	39.974720	-109.422608	0.90	154.76	94.00	441.15	21.52	-3.24	
4456.00	4.68	112.58	4418.82	-27.77	446.69	39.974713	-109.422581	0.55	130.48	95.00	449.04	13.30	-4.43	
4550.00	4.59	116.02	4512.52	-30.89	453.61	39.974704	-109.422556	0.31	109.65	94.00	456.40	5.64	-4.54	
4644.00	2.14	143.04	4606.35	-33.94	458.05	39.974696	-109.422540	3.04	160.08	94.00	461.30	-1.75	-4.59	
4739.00	0.22	191.99	4701.33	-35.54	459.08	39.974691	-109.422537	2.11	175.25	95.00	462.60	-5.46	-0.44	
4928.00	0.31	144.92	4890.33	-36.31	459.29	39.974689	-109.422536	0.12	267.77	189.00	462.95	-3.37	-3.95	
5117.00	0.50	139.11	5079.32	-37.35	460.13	39.974686	-109.422533	0.10	344.89	189.00	463.95	-3.56	-3.63	
5305.00	0.88	161.24	5267.31	-39.34	461.13	39.974681	-109.422529	0.24	46.45	188.00	465.29	-5.95	-1.35	
5494.00	1.00	145.24	5456.28	-42.07	462.54	39.974673	-109.422524	0.15	286.43	189.00	467.15	-7.60	-2.73	
5683.00	0.94	146.99	5645.26	-44.73	464.32	39.974666	-109.422518	0.04	154.59	189.00	469.38	-10.07	-1.86	
5872.00	1.43	142.88	5834.21	-47.91	466.59	39.974657	-109.422510	0.26	348.10	189.00	472.17	-13.04	-2.04	
6061.00	0.95	214.01	6023.18	-51.09	467.14	39.974649	-109.422508	0.76	141.31	189.00	473.26	-7.63	13.40	
6250.00	1.25	269.49	6212.15	-52.40	464.20	39.974645	-109.422518	0.56	103.20	189.00	470.60	3.82	14.17	
6439.00	1.76	325.68	6401.10	-50.02	460.50	39.974652	-109.422532	0.79	100.48	189.00	466.55	9.05	5.82	
6628.00	3.31	341.99	6589.91	-42.44	457.18	39.974672	-109.422544	0.90	33.26	189.00	461.94	1.15	3.50	
6817.00	2.38	327.61	6778.67	-33.93	453.39	39.974696	-109.422557	0.62	210.47	189.00	456.71	-9.77	1.75	
6911.00	1.31	348.49	6872.63	-31.23	452.13	39.974703	-109.422562	1.33	158.01	94.00	455.00	-11.89	5.69	
7005.00	1.25	343.79	6966.60	-29.20	451.63	39.974709	-109.422563	0.13	237.92	94.00	454.15	-14.88	4.45	
7100.00	0.53	154.59	7061.60	-28.60	451.53	39.974710	-109.422564	1.87	177.26	95.00	453.94	16.43	-1.61	
7289.00	1.30	161.62	7250.57	-31.42	452.58	39.974703	-109.422560	0.41	11.82	189.00	455.47	14.03	-3.14	
7478.00	2.25	164.99	7439.48	-37.04	454.21	39.974687	-109.422554	0.51	7.96	189.00	458.07	8.91	-3.52	
7666.00	2.62	164.07	7627.31	-44.74	456.35	39.974666	-109.422546	0.20	353.51	188.00	461.53	1.93	-3.12	
7761.00	1.53	190.77	7722.25	-48.07	456.71	39.974657	-109.422545	1.50	151.25	95.00	462.47	-2.39	-2.75	
7855.00	1.63	197.49	7816.21	-50.58	456.07	39.974650	-109.422547	0.22	65.03	94.00	462.28	-4.80	-2.43	
7950.00	0.81	142.36	7911.19	-52.40	456.08	39.974645	-109.422547	1.41	209.66	95.00	462.61	-1.81	-6.11	
8138.00	1.25	149.49	8099.16	-55.22	457.93	39.974637	-109.422541	0.24	19.82	188.00	464.93	-5.10	-5.12	
8325.00	1.06	157.99	8286.12	-58.58	459.61	39.974628	-109.422535	0.14	142.15	187.00	467.18	-8.65	-3.60	
8516.00	1.50	151.24	8477.07	-62.41	461.48	39.974618	-109.422528	0.24	337.69	191.00	469.69	-11.56	-4.27	
8705.00	1.48	139.53	8666.01	-66.43	464.25	39.974607	-109.422518	0.16	260.40	189.00	473.12	-14.59	-6.34	
8833.00	1.10	144.58	8793.98	-68.69	466.04	39.974600	-109.422512	0.31	165.86	128.00	475.28	-17.43	-4.47	
8883.00	1.10	144.58	8843.97	-69.47	466.59	39.974598	-109.422510	0.00	0.00	50.00	475.96	-17.97	-4.35	

Formation Points (Relative to centre, TVD relative to Drill Floor)		
Name	MD (US ft)	TVD (US ft)
GREEN RIVER	1350.02	1350.00
BIRDSNEST	1521.12	1521.00
MAHOGANY	2023.03	2021.00
WASATCH	4409.02	4372.00
MESA VERDE	6752.26	6714.00
SEGO	8869.03	8830.00